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INFLUENCE OF THE TARGET FIRMS' CEOS PROFILES ON THE RESISTANCE TO A TAKEOVER ATTEMPT

João Guilherme Oliveira Fernandes Moniz Rebelo

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Dissertation

Master in Finance

Orientado por

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Biographical Note

João Guilherme Oliveira Fernandes Moniz Rebelo was born on July 15th of 1992, in Fafe, Portugal.

He attended high school education at *Escola Secundária de Fafe*. During his younger years he had already joined several associations, namely *Interact Club de Fafe*, *Associção de Estudantes da Escola Secundária de Fafe* and *Conselho Geral da Escola Secundária de Fafe*. João Moniz Rebelo participated in many activities, which allowed him to develop important skills like leadership, teamwork, time management, communication and decision-making. He also obtained the Cambridge First Certificate in English, the Certificate in Windows Office System and in Web Design. In addition he participated in a Comenius Program, more specifically, a joint project between four high schools in Austria, Italy, Portugal and Sweden.

In 2010, he applied and joined *Faculdade de Economia da Universidade do Porto* (The High School of Economics and Management of Porto), where he obtained his Economics Bachelor's degree in 2014. During this period he made an Erasmus program (one semester) at the University of Granada and has joined two school associations: *NEV-EXUP* (Human Resources Department) and *StartUp Buzz* (Human Resources Department).

In 2014 he enrolled in Master in Finance at *Faculdade de Economia da Universidade do Porto*, and he joined a school association: "FEP Finance Club" (between 2014 and 2016), in the departments of Career Development and Corporate Finance. Furthermore, he was elected to the Supervisory Council of *Associação Desportiva de Faf*e (elected for the period between 2015 and 2017), being also member of *Rotaract Club of Fafe* (since 2012).

In January of 2016 he initiated his professional career in *Fundação do Pessoal da BP Portugal*, and since May of the same year he joined *Deloitte Consultores*, working in the Global Investment and Innovation Incentives team.

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My recognition also goes to Maria Teresa Castilho who was willing to support me with her friendship.

Finally, for their never-ending support and for always believing on me, I would like to thank my girlfriend Francisca, my brother Pedro, my grandparents, and my friends, who very often supported me along these years in many aspects of my life.

The last but not the least, my special gratitude to my parents, who backed up all my dreams and needs.

Abstract

The study carried out in this dissertation aims to problematize the possibility of a correlation between the (in)success of a takeover attempt and the individual characteristics of a Chief Executive Officer ("CEO"). Thus, it is sought to understand whether certain individual characteristics (age, tenure, academic background, nationality and gender) of a target firm's CEO have any influence on a greater or lesser resistance to a takeover attempt.

This study is meritorious because it allows to conclude that some takeover attempts made by any acquirer firm, in relation to a target firm, do not occur due to personal decisions of the target firm's CEO, meaning that the concept of rational markets may be scientifically insufficient to explain certain occurrences in the financial world. In fact, psychological factors seem to play a central role in the topic of this study: mergers and acquisitions. In practical terms, there are evidences that stress an increase in the target firms' CEOs resistance to any type of takeover, depending, for example, on the age of the CEO, of their tenure, or even of their gender. In order to achieve a response to the questioning initially posed in this dissertation, a limited number of hypotheses based on specific individual characteristics were stipulated, which were in turn subjected to statistical tests using binomial regression models, used by previous relevant studies. Through actual and potential transactions between 2006 and 2016, with European companies as the main players, and whose observations were divided into three scenarios, it was possible to conclude that, regarding greater or lesser resistance to acquisitions attempts, the age of the CEOs present a curvilinear behavior, and their tenure a decreasing behavior. In addition, a male CEO tends to outreach less than a female CEO.

Key-words: Chief Executive Officer, Individual Characteristics, Takeover.

JEL-Codes: G34, G41.

Resumo

O estudo realizado na presente dissertação tem como objetivo problematizar a possibilidade de uma correlação entre o (in)sucesso de uma aquisição e as características individuais de um *Chief Executive Officer* ("CEO"). Procura-se, assim, perceber se determinadas características individuais (idade, os anos em função, formação académica, nacionalidade e género) de um CEO de uma empresa-alvo têm alguma influência numa maior ou menor disposição para resistir a uma tentativa de aquisição por parte de uma empresa adquirente.

Este estudo mostra-se meritório pois permite perceber que algumas tentativas de aquisição por parte de uma empresa adquirente, em relação à empresa-alvo, não se concretizam devido a decisões pessoais do CEO dessa mesma empresa-alvo, significando que o conceito de mercados racionais pode ser cientificamente insuficiente para explicar certas ocorrências no mundo financeiro. Com efeito, fatores de ordem psicológica parecem desempenhar um papel fulcral na área de estudo das fusões e aquisições. Em termos práticos, existem evidências e padrões que provam um aumento da resistência a qualquer tipo de aquisição, dependendo, por exemplo, da idade do CEO, dos anos em que se encontra em funções, ou mesmo do seu género.

De forma a alcançar uma resposta à problematização inicialmente colocada no presente estudo, foi estipulado um número limitado de hipóteses, baseadas em características individuais específicas, que foram, por sua vez, submetidas a testes estatísticos, usando-se, para tal, modelos de regressão binomial, anteriormente utilizados por estudos equiparáveis.

Através de efetivas e potenciais aquisições ocorridas entre 2006 e 2016, com empresas Europeias como principais intervenientes, e cujas aquisições foram divididas em três cenários, foi possível concluir que, relativamente a uma maior ou menor resistência a tentativas de aquisições, a idade do CEO apresenta um comportamento curvilíneo, e os seus anos de mandato um comportamento decrescente. Ademais, um CEO homem tende a resistir menos vezes que um CEO feminino.

Palavras-chave: *Chief Executive Officer*, Caraterísticas Individuais, Aquisições.

JEL-Codes*:* G34, G41.

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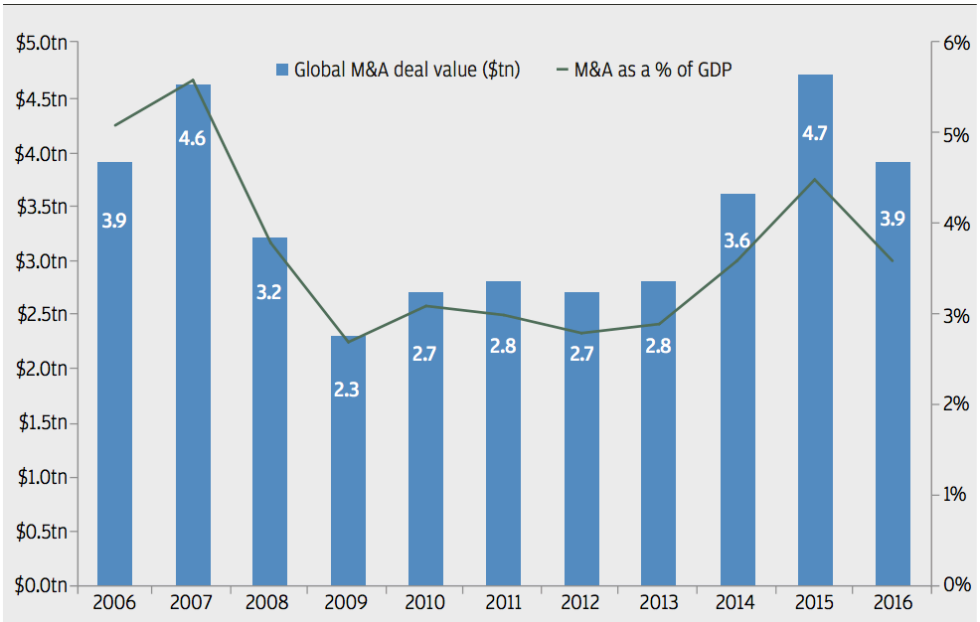
1. Introduction

The international "Merger and Acquisitions" ("M&A") market greatly impacts the world economy. Indeed, this is a topic with a great weight in the financial environment nowadays. More precisely, it also characterizes itself as a considerable variable in the performance of the international financial market, both in macroeconomic (ex., employment) and microeconomic (ex., prices) terms. On the other hand the impact in the international financial market demands a problematization to understand how it leads us to a possible success of many M&A transactions.

A practical proof that the M&A field represents a great weight in the financial environment nowadays, as well as causing a huge impact in the world economy, is that the major international banking and consulting/auditing firms - unique pillar players in the financial system - have departments solely focused on merger and acquisitions transactions.

Figure 1. Global M&A Activity (source: J.P. Morgan, Deologic and IMF GDP forecasts as of January 10th, 2017; M&A as a % of GDP is rounded to the nearest decimal)



According to an empirical evidence, all of us can notice that the success or failure of many M&A transactions could not be explained by the rational reason of shareholders value maximization or, in other terms, by the assumptions that support the classical theory of efficient markets.

Yet, this does not mean that the classical theory of efficient markets is wrong or it should be abolished. In spite of being the reason of many crises, the market must still be viewed as a self-corrected mechanism because it can correct its mistakes/errors. Nonetheless, we should be open to accept that the market can be inefficient in the short-term, on account of irrational decisions made by not fully rational agents. As Barberis and Thaler state "Behavioral finance (...) argues that some financial phenomena can be better understood using models in which some agents are not fully rational". (2003:1053).

Regarding stock market behavior in which there was no rational explanation to base the market price's pattern, the Behavioral Finance steam has shown us that the market is not always efficient. This happens because the market was not absorbing all the information available. If it were efficient it would lead to "optimal" prices, i.e., to the market equilibrium. And, thus, we can verify the existence of these numerous errors or failures made by the market system on a regular basis. This also fits for any M&A possible transactions.

Nowadays, the Chief Executive Officer ("CEO") among the many listed and unlisted companies is one of the most important economic agents, which exists in the financial market. His/Her profile may be an explanatory variable to understand some economic decisions.

The human capability to make choices leads to the consequent logic of one path and one ending. We must be aware that choices have an opportunity cost, and thus we must decide in order to maximize our utility or wealth.

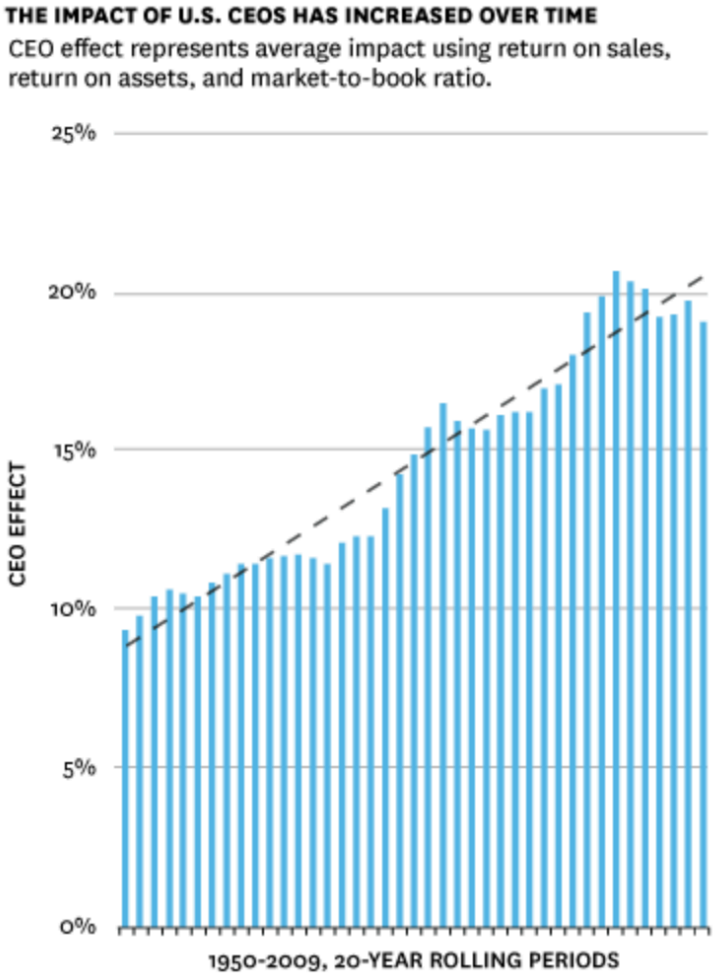
Unfortunately many of our decisions are not rational. In fact, mostly of them follow emotional reasons. Like any other human/consumer/economic agent, a CEO can decide irrationally, but with a peculiarity: his/her choice or decision can affect the market in his whole, for better or for worst.

There are many studies that have proposed some interesting conclusions regarding CEOs influence on a firm's performance. For example, in reference to the research study lead by Quigley and Hambrick (2015), Frick (2014)[1] regarded the interesting occurrence that is "known as the 'CEO effect', which is the portion of company performance that is associated with who's in charge". The conclusions state that the CEO of a company is a more significant predictor of that company's performance than at any time since the mid-

[1] Source: https://hbr.org/2014/03/research-ceos-matter-more-today-than-ever-at-least-in-america?referral=03759&cm_vc=rr_item_page.bottom (visited on 26/08/2018)

twentieth century.

Figure 2. The Impact of U.S. CEOs Has Increased Over Time (source: "Has the 'CEO' effect increased in recent decades? A new explanation for the great rise in America's attention to corporate leaders", https://www.hbr.org)



Quigley and Hambrick (2015) reached to these conclusions when pursuing the CEOs as the major representatives of a company, and consequently, they took the reins in a representative sample of the United States of America public companies. With this tracking, the authors proceeded to measure whether different CEOs presided over significantly different levels of performance, even after taking into account industry, firm, and year (accounting for macroeconomic changes). It was found evidence that CEOs performance have an impact on the average of three metrics: return on sales, return on assets, and market-to-book ratio (see Figure 2). In fact, the authors also compared the prediction capability between different periods of time:

> "In the period from 1950 to 1969, for instance, just knowing the industry a company was in predicted 38.7% of differences in performance. By contrast, from 1990 to 2009 industry predicted only 3.7% of the difference. That gap is telling, and the authors see it as evidence that what has changed goes well beyond CEO leadership. A combination of forces (...) made business more dynamic and less predictable. It's against that backdrop that CEOs have been empowered to pursue new strategies and markets, often across the globe. The result has been an increase in CEO impact". (Frick, 2014)[2].

Moreover, a CEO cultural identity, or his/her nationality, can represent a supporting force to influence the management's outcomes as Meyer (2015) states:

> "…in today's global economy you could be negotiating a joint venture in China, an outsourcing agreement in India (…), you might find yourself working with different norms of communication. What gets you to 'yes' in one culture gets you to 'no' in another"[3].

As we can see, there are works in which we may find interesting assumptions that can, in fact, present alternative explanations to economic decisions. Therefore, it can be said, that economic agents, like CEOs, with a high level of probability, can decide and make choices based on personal reasons instead of rational financial assumptions (e.g., wealth maximization).

Regarding the work that will be presented here, those personal motivations could directly affect any M&A transaction, more precisely, the probability to resist or not resist a takeover attempt. Yet it is important to point out that there are already some studies that defend a correlation between some individual characteristics of a CEO and his/her willingness to resist any M&A attempts.

In fact, Jenter and Lewellen (2015) found empirical evidence that the age of a CEO reflects direct influence on the likelihood to resist a takeover attempt. Their study claims that the higher the CEOs' age is, namely the one of the target firm in an acquisition attempt, the more is the probability to happen a successful takeover bid, more precisely, higher when they reach the age of sixty-five.

Buchholtz and Ribbens (1994) also state that the effect of CEOs' age on takeover

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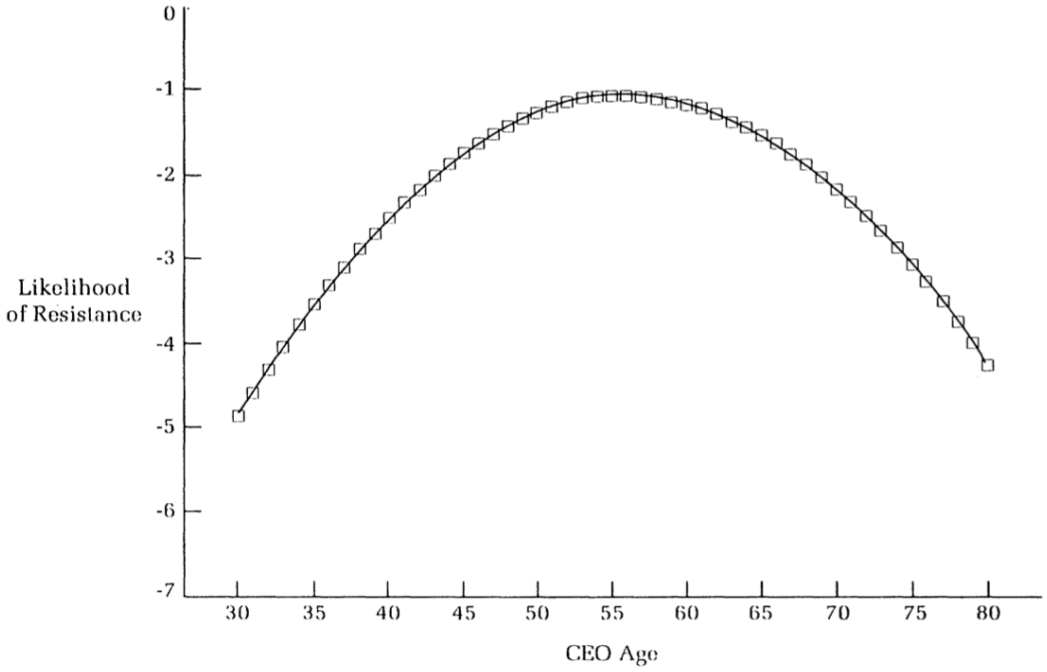
[2] Source: https://hbr.org/2014/03/research-ceos-matter-more-today-than-ever-at-least-in-america?referral=03759&cm_vc=rr_item_page.bottom (visited on 26/08/2018), referring to the work of Quigley and Hambrick (2015).

[3] Source: https://hbr.org/2015/12/getting-to-si-ja-oui-hai-and-da# (visited on 26/08/2018)

resistance is curvilinear. They have determined that takeover resistance increases with CEOs' age until the age of fifty-six, where it reaches his maximum, and then starts to decrease (see Figure 3).

Figure 3. Effect of CEO's Age on the Likelihood to Resist a Takeover Attempt
(Buchholtz and Ribbens, 1994:570)



Furthermore, there are studies whose efforts found evidence that some companies acquisition activity (mostly characterized as takeovers) are highly influenced by the actions and the perceptions of the target firms' CEOs (Graham et al., 2013; Shefrin, 2010), leading us to the conclusion that managerial motives rather than shareholder value maximization motives might be inherent in acquisition activities (Shleifer & Vishny, 1997). Thus, there are some emotional and singular reasons somewhat attached with the choices the CEOs make, and consequently do not always correspond to the rational and efficient objective of wealth maximization of the firm they manage or of the individual interest of other economic agents, especially and particularly of the shareholders.

Effectively the personality of the major senior executive of any company affects clearly the organizational performance of the Chief Executive Officer (Peterson et al., 2003). In other words, it clearly has a direct impact on the occurrence of any merger, acquisition or

takeover attempt, considering his/her function in any company as Farkas and Wetlaufer (1996) stated:

> "The CEO's job is like no other in the organization. It is infinite. Senior executives are, by definition, ultimately responsible for every decision and action of every member of the company, including those decisions and actions of which they are not aware"[4].

The fundamental difference between the proposal brought by this dissertation and the previous studies about this topic it is related with the variables submitted to statistical tests. Instead of analyzing compensation variables (e.g. golden parachutes, stock ownerships, etc.) as the major reason to justify the resistance by CEOs to takeover attempts and even to enhance their resistance due to certain individual characteristics, this dissertation only tests the effects of some individual characteristics on the likelihood to resist takeover attempts.

Thus this work only focuses on a psychological approach, testing the effects that the age, tenure, academic background, nationality and gender of the target firm CEO could have on the likelihood to resist a takeover attempt, using the values referent to the deal as control variables.

It can be said that this is straightforward to the field of behavioral finance, in which it assumes that there are irrational managers operating in efficient or inefficient markets (Baker & Nofsinger, 2010).

This study will, thus, enhance and complement the literature, regarding M&A transactions, searching for a correlation between the individual characteristics of the target firms' CEOs in a takeover attempt, and his/her likelihood to resist that takeover.

Could it be that a CEO has more personal reasons instead of financial doubts to impeach an attempt of a takeover? There are already studies that defend that CEOs characteristics like age affect not only their general attitude but also their need for financial security and career perspective. As already stated here, we all know how important is the CEO's role in modern companies. For this reason, the future of any firm is affect by the Chief Executive Officer behavior, which is directly connected to his/her individual characteristics, the ones that are the object of study here.

It can be asked: does the utility (or willingness to resist) of a CEO (or the equivalent senior position) has any connection with the (un)success of some important takeovers,

[4] Source: https://hbr.org/1996/05/the-ways-chief-executive-officers-lead (visited on 26/08/2018)

acquisitions or other kind of transactions? Do some individual characteristics lead to a higher or lower resistance to takeover attempts?

There is little empirical evidence that can support this last question. Thus, considering that there is a gap of literature regarding the effects that specific CEOs profiles may have on the success of a M&A transaction, this research wants to be both an extension of prior studies, and also a groundwork for future ones, representing a key contribution for this subject.

This study focuses on the particular question: will specific characteristics of a CEO have any influence on the probability that he/she will have a higher or lower willingness to resist any takeover attempt? To answer this question this dissertation explores selected characteristics (age, tenure, academic background, nationality, culture and gender) of the CEOs from the target firm in a takeover attempt as the explanatory variables of a higher or lower resistance to takeover attempts.

Analyzing individual characteristics of the target firms' CEOs as the main variables to explain a higher or lower resistance to a takeover attempt, we try to find answers to fill some gaps which domain the treatment of this aspect in the current literature.

Additionally, it will be possible to justify that some M&A transactions may fail because there are psychological and individual reasons which play an important role, thus enhancing the fact that some decisions and transactions made in the financial world are based on irrational motives, which may justify why the market is not always efficient.

In order to accomplish what was stated, this dissertation will be divided in four major sections: Section 2 will present a literature review; Section 3 will present the data and methodology that will be used for the treatment of our data; Section 4 will present the results of our research, and Section 5 the conclusions or a summary of the main findings.

2. Literature Review

This section covers the previous studies, the main theories and definitions, which regard this same field as this dissertation, namely the higher or lower likelihood that the CEO of a target firm will resist a takeover attempt based in his/her profile.

2.1. Overview

This dissertation is not focused in the study of assumptions to sustain the behavioral finance stream. In spite of explaining that many financial phenomenon occur due to psychological motives of the economic agents, it is a good starting point to argue that some M&A acquisitions may go or not go ahead because of the target firms CEOs profiles.

The studies lead by Buchholtz and Ribbens (1994) and Kilian and Schindler (2014) play an important role in this dissertation due to their two major conclusions: specific CEO characteristics influence short-term M&A performance, and non-value creation of acquisitions might be explained by the overconfident behavior of CEOs.

These previous studies reached conclusions that established a pattern between some CEOs individual characteristics and their willingness to resist a takeover attempt. Thus, it has been reached a clear defiance to the classical finance theory, because they justify the success or failure of some M&A transactions based in explanations in addition to the logical and expected reason of wealth maximization. In simpler terms, there are some decisions affected by psychological factors that can lead to different outputs in the decision-making process (Ritter, 2003), i.e., outputs based on rational or irrational decisions.

The two works presented above were a fundamental key in the search for good bibliographical source and to find out what kind of methodology should be followed here. Considering that those research's studies reveal a level of correlation between individual characteristic of a CEO (or equivalent top senior manager) and the performance or occurrence of M&A transactions.

The major difference of this research study, comparing the previous ones, will consist on four major aspects:

- Individual characteristics of the target firm's CEO in analysis;
- Non-addressing any attention to compensation variables;

- Different data (geographical area and period of time);
- Purpose, i.e., to find a connection between selected individual characteristics of the CEO and the likelihood to resist a takeover attempt.

The following subsection will describe the main relevant definitions, theories/models and the principal similar studies, related to the theme of the present dissertation. This will allow a critical analysis of the literature reviewed and the construction of our hypothesis that will be tested and analyzed in order to show the existence of a connection between the individual characteristics of the target firms' CEOs and their willingness to resist a takeover attempt.

2.2. Relevant Concepts

This study will try to test hypothesis that connect certain characteristics of the profile of a CEO, particularly of the target firm in a takeover process, which reduce the likelihood to conclude or fulfill the agreement proposed from one part (the acquirer) to the other (the target).

Kilian and Schindler (2014) made a summary of the many previous researchers that focused on individual CEO characteristics and their influence on M&A activities and M&A performance (Aktas et al., 2007; Ferris et al., 2013; Levi et al., 2010; Malmendier & Tate, 2005; Yim, 2013). However, they underline, just as it was mentioned before, that the existing studies present a lack of important references, i.e., former studies are limited on certain aspects:

- They use CEO characteristics as control variables or only focus in one individual characteristic (Lucey et al., 2013; Malmendier & Tate, 2008; Yim, 2013);
- They only focus on influences of CEO characteristics on M&A decisions in the North American or United Kingdom market (Aktas et al., 2007; Buchholtz & Ribbens, 1994; Jenter & Lewellen, 2015; Kilian & Schindler, 2014; Malmendier & Tate, 2005, 2008);
- They do not consider crisis periods, like the global financial crisis of 2007/2008, leading to a non-consideration of the possible impacts that might have on the extent the CEO characteristics affect M&A deals (Ferris et al., 2013; Yim, 2013).

In order to solve one of these gaps in the research literature it is necessary to understand some main definitions or concepts that are related to the present research study:

"Decision-Making Process", "Value Creation of M&As", "Role of a CEO" and "Takeovers".

2.2.1. Decision-Making Process

Fama (1980) accents that the "separation of security ownership and control can be explained as an efficient form of economic organization within the 'set of contracts' perspective" (289). A firm is disciplined by the fierce competition laid down by other firms present in the market, forcing the creation of mechanism that provide a valuable evaluation of the management team performance, and of each individual member. A manager must booth looking for the opportunities offered by the market and the discipline intrinsic to the same (within his firm and outside the same). Nonetheless, every senior executive must, above all, represent the interest of the company's shareholder.

Decision-Making Process is simply a problem-solving activity, where the CEO, who makes the choices and collects data and information, studies the diversified possibilities in order to reach a solution. However, due to the fact that takeovers can be seen as individual decisions, the psychological domain of an individual must not be neglected in the decision-making process when looking for reasons to the non-value creation of an M&A transaction (Roll, 1986).

The CEO is ultimately the one who has the last word, and it can have different forms of strategic decision-making. It could be the only one to decide or need the approval of others in order to reach a rational and beneficial solution for all (Arendt et al., 2005).

The more influences the firm and managers are open to, the more different will be the consequences which result from the decision-taking process (Isen & Means, 1983).

Papadakis et al. (1998) studied the influence of the types of Decision-Making on certain aspects like rationality, pointing out that decision-specific characteristics and the internal context of a firm influence the rationality of the decisions made by the CEO or by the top managers. In other words, the behavior of a CEO or a top manager could alter their behavior due to the possibility of changes in the context of the firm, eventually leading to specific conduct, when facing an eventual attempt of takeover.

Papadakis and Barwise (2002) have studied to what extent the CEO and the top-management teams influence the making of strategic decisions. By referring to the studies lead by Lewin and Stephens (1994) and Rajagopalan et al. (1993), Papadakis and Barwise assert that "two important themes of strategy research over the last (...) years have been the

(...) the role of top management (...) [and] the process of making strategic decisions" (83), even though there is little empirical work that links these two themes. They concluded about the existence of grounded evidence that the CEOs and top-management teams' characteristics would indeed affect strategic Decision-Making "over and above the influence of a broader context (external environment, firm, size, decision's characteristics etc.)" (90).

2.2.2. Role of a CEO

The role of a CEO in any firm has increased and modified along the years. A CEO is, indeed, the major responsible for leading the development and execution of the company's long term strategy with the ultimate goal to create shareholder value, being today the major asset that a company can have.

The CEO has not only one role, but in fact multiple ones that must be connected, obliging the CEO to make them work at the same time - they all must be tuned to each other.

The CEO is like the maestro of an orchestra it is the major responsible for the functionality of the employees social network without existing conflicts, the main image of the firm, the one that must adapt the firm to the external environment and focus on the management of internal operations (Zuckerman, 1989).

There is strong evidence that top managers power play a fundamental role in strategic decision-making (Finkelstein, 1992). Focusing in the present research, variables like CEO's age, tenure, level of education, or even companies of different industries, have, in fact, a profound influence in the decisions taken by the CEO or the manager, thus leading to a complexion of the decision-taking process (Finkelstein & Hambrick, 1990; Hitt & Tyler, 1991).

Gong and Guo (2014) state that the more power a CEO wields in a firm, the more likely the M&A decisions will reflect the CEO's preference, rather than the interest of the shareholders (or their representatives). However, and in the M&A context, a high visible major failure in an acquisition can even potentially endanger the position of entrenched CEOs (Lehn & Zhao, 2006), thus leading powerful CEOs to avoid risky acquisitions in order to protect their jobs, future compensation, and other private benefits.

Moreover, Lehn and Zhao (2006) concluded that firms with powerful CEOs are less likely to announce any type of deals, and, by contrast, firms with less powerful CEOs (stronger

management boards) are more likely to announce deals with large synergistic gains and losses. Powerful CEOs prefer a "quiet life" (Bertrand & Mullainathan, 2003).

2.2.3. Value Creation of M&A

Alexandridis et al. (2017) states that M&A deals create more value for acquiring firm shareholders post-2009 than ever before (see Figure 4).

Bösecke (2009) says mergers can be viewed first of all as a result of rational choice. Management decides to undertake an acquisition in order to increase company value (to act in the interests of shareholders) or to increase their' own utility (deviating from shareholders' interests). The theories dealing with shareholders' gains can be distinguished according to the postulated source of merger gains.

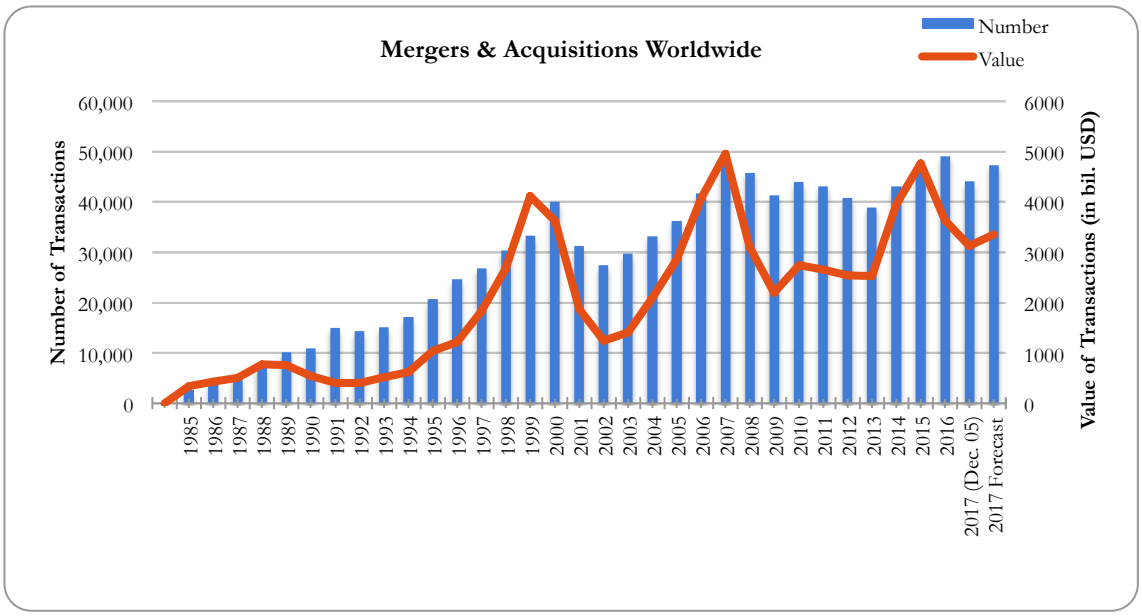
Mergers and Acquisitions can be seen as a market control mechanism because companies where resources are not used efficiently are likely to be a takeover target. This guarantees that major departures from maximization of shareholder wealth are only temporarily and will be solved by the market and management teams, competing for the rights to manage the company's resources (Jensen & Ruback, 1983; Masulis et al., 2007).

Kilian and Schindler (2014) summarized numerous studies regarding value creation on M&A. They found that, on average, acquisitions do not create substantial value for acquirer's shareholders. Besides the inefficient use of companies' resources, additional factors have to be identified in order to explain the result of M&A deals worldwide.

As Gong and Guo (2014) state in their abstract to "CEO Power and Merger Acquisitions", "(...) CEO power in acquiring firms can explain the occurrence of both large value creation and destruction deals in M&A". On the other hand, they go on stating that "(...) the more power a CEO wields in a firm, the more likely the M&A decisions will reflect the CEO's preferences rather than that of the shareholders (or their representatives, the board of directors)" (1). They also concluded that firms with powerful CEOs make fewer deals and the returns are less dispersed. Firms with powerful CEOs are also less likely to do all cash deals, and they use, instead, a larger proportion of stocks as payment.

As Gong and Guo (2014) very well pointed out, managerial actions, which are taken to decrease the probability of takeovers (i.e., implementation of antitakeover strategies, standstill agreements and targeted block repurchases), lead to negative abnormal stock returns (Gompers et al., 2003; Jensen & Ruback, 1983; Masulis et al., 2007; Shleifer & Vishny, 1997).

Figure 4. Number & Value of M&A Worldwide (source: Institute of Mergers, Acquisitions and Alliances (IMAA)[5])



2.2.4. Takeover

DePamphilis (2009) states that a takeover may be viewed as a process or an M&A transaction regarding a firm's operational restructuring, and can be divided into two kinds: friendly takeover of control, when the target's board and management are receptive to the idea and recommend shareholder approval, and hostile takeover that occurs when the initial approach was unsolicited or the target was not seeking a M&A process at that time.

Along with the process of takeover comes the definition of tender offer, which is an offer to buy shares in another firm, usually for cash, securities, or both. In fact, after understanding the meaning of tender offer, we were able to collect the acquisitions, which were used as the data sample to test the statistical importance of the hypothesis that are the aim of analysis in this dissertation.

Buchholtz and Ribbens (1994) distinguished the definition of takeovers between two different views: empirical and theoretical. Empirical studies viewed takeovers as a homogeneous phenomenon. Theorists defended that the role of a CEO (or equivalents) is to respect the desire of the shareholders, and must not resist a takeover attempt if these last ones do not desire it (Easterbrook & Fischel, 1981). The contrary can be seen as managerial opportunistic behavior. Nonetheless, a possible resistance of the CEO or the

[5] Source: https://imaa-institute.org/mergers-and-acquisitions-statistics/ (visited on 26/08/2018)

management board, cannot be seen as opportunism, but as the best interest of the firm's shareholders (Turk, 1992).

The point here is that a CEO behavior, and according to his/her specific individual characteristics, can indeed change the decisions and acceptance of important deals, for better or worse.

2.3. Main Theories

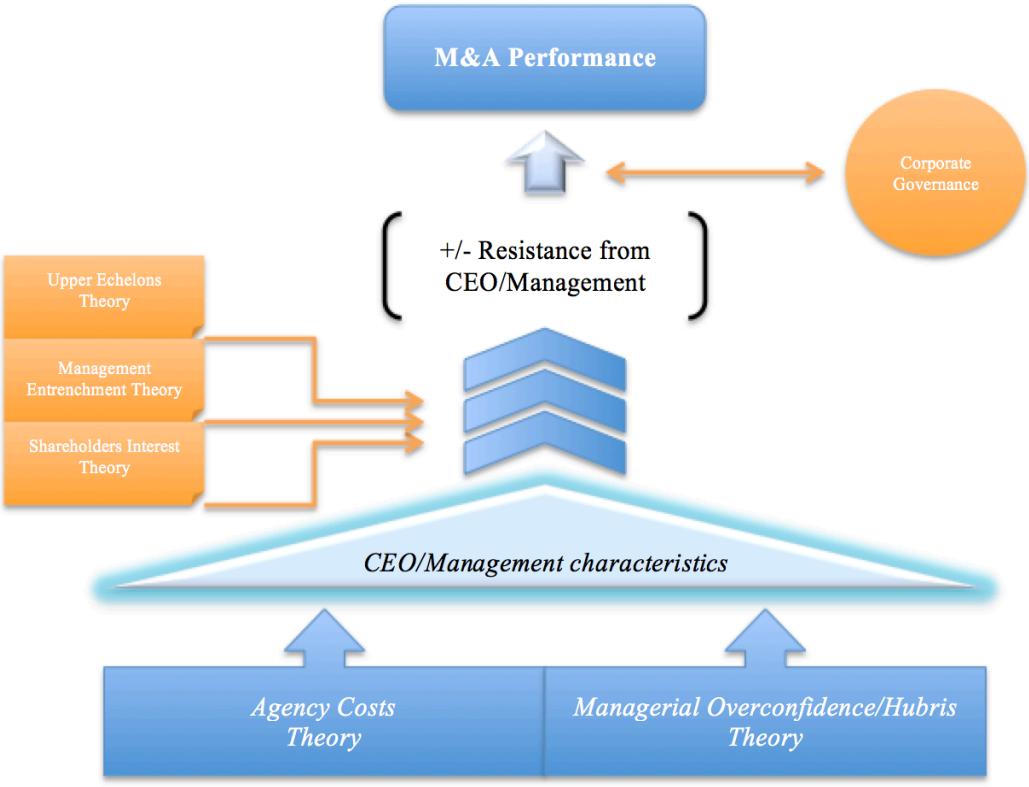
Buchholtz and Ribbens (1994) explained that the concept of takeover resistance could be viewed according to two perspectives: an "Upper Echelons Theory" view or an "Agency Theory" view. Agency problems arise when the desires of managers differ from the desires of firm's shareholders (Eisenhardt, 1989). The "Upper Echelons Theory" suggests that the strategic decision-making of CEOs (or similar top management positions) is based on rational analysis or on idiosyncratic preferences that steam from their profile (Hambrick & Mason, 1984).

In fact, Kilian and Schindler (2014) state that "CEOs are likely to crucially influence M&A activities and specifically, short-term M&A performance" (p. 4), and that "decisions made by managers are likely to have a large impact on the company's performance and profitability depending on their degree of influence on corporate decision-making (...), [meaning that] the more power a CEO has in this process, the less objective is his/her judgment scope regarding corporate decision-making" (6-7). Appropriating the works lead by Bertrand and Schoar (2003), Jensen (1986), Jensen and Ruback (1983), Roll (1986) and Tricker (2012), Killian and Schindler constructed an interesting theoretical framework for their research. These authors affirm that both individual managers and CEOs often play a significant role in corporate decision-making processes.

This dissertation adapts the framework constructed by Killian and Schindler, in order to present an overall perspective of the research study and its linkages (see Figure 5).

There are some theories that influence our research, due to their explanation regarding the connection between a CEO profile and any type of an M&A deal, namely "Agency Theory", "Hubris Theory and Managerial Overconfidence", "Upper Echelons Theory", "Management Entrenchment Theory" and "Shareholders Interest Theory".

Figure 5. Conceptual Guidance Framework of this Dissertation (based on Killian and Schindler, 2014)



2.3.1. Agency Theory

When we refer to the Agency Theory we are addressing to the problems which come upon when the shareholders' interests do not coincide with the ones of the management (Jensen & Meckling, 1976), and, in particular, with the CEOs desire and vision.

This comes along with the competition for market control. There are studies claiming hard to find managerial actions that can negatively affect the interest of shareholders (Jensen & Ruback, 1983). But this does not for itself show the existence of passive CEOs on takeover attempts, and it is important questioning if a CEO profile may indeed affect the path of a company.

An agency problem arises in this research because of interest conflicts, and turns the attention mainly to the forms to prevent takeovers. Defensive measures, like golden parachutes or stock ownership, should function as mechanisms to lessen the likelihood of resistance on takeover attempts (Lambert & Larcker, 1985).

Buchholtz and Ribbens (1994) defended that there is no clear evidence that golden

parachutes affect the resistance of takeovers. In contrast, CEOs stock ownership had some weight on lowering the likelihood to resist a takeover attempt.

However, agency problems can be reduce by aligning shareholders and management interests (Jensen & Meckling, 1976). The more the stock hold, the more similar the interest will be, meaning that there is no need for further incentives like golden parachutes (Wade et al., 1990). Not only management, represented by the CEOs, are less likely to resist takeover attempts, but also have a lower desire to engage in conglomerate acquisitions that could increase their managerial power (Amihud & Lev, 1981).

2.3.2. Hubris Theory

"Hubris Theory" was defined firstly by Heaton (1997), as a description of a personal quality of extreme pride or overconfidence. This theory can be seen as an alternative view for the "Agency Theory" of corporate finance, allowing an explanation for a CEO's behavior in a M&A decision-making. Considering the behavior of any CEO the decision-making process will differ. Thus, each CEO, with his/her unique profiles, can take decisions or actions that are not always rational and can affect the company they manage.

Hubris can also be caused when the CEO believes that he/she is acting according with the interest of shareholders but overestimates his/her abilities to value the target correctly as well as the potential synergies, and underestimating the risk associated with the acquisition (Malmendier & Tate, 2008; Shefrin, 2005).

Furthermore, overconfidence is often accompanied by excessive optimism, meaning that managers overestimate the possibility of experiencing favorable outcomes and underestimate the likelihood of facing unfavorable outcomes (Shefrin, 2005).

As a consequence, overconfident managers are more likely to pursue and complete acquisitions as well as engage in diversifying mergers compared to rational CEOs (Doukas & Petmezas, 2007; Kolasinski & Li, 2013; Shefrin, 2005). However, empirical evidence suggests that overconfident CEOs materialize lower announcement returns and poor long-term performances compared to acquisitions undertaken by rational CEOs (Doukas & Petmezas, 2007; Kolasinski & Li, 2013). On the other hand, Kaplan et al. (2012) emphasize that better overall performance of companies is positively related to a CEO's resoluteness and overconfidence.

Moreover, Kilian and Schindler (2014) suggest that CEO's overconfidence might increase during his/her life due to the self-attribution bias, i.e., higher age means higher

overconfidence. This bias describes the tendency of CEOs to take the credit for successful acquisitions and deny taking (personal) responsibility for failures, enhancing the confidence about their abilities over time (Doukas & Petmezas, 2007; Shefrin, 2005).

Although we can take studies that advocate that managerial over-optimism can improve firm's welfare (specifically, firms' profitability and market value), and it can emerge dynamically in a rational economic framework, other studies defend the contrary.

Baker and Nofsinger (2010) bring up an all set of works that endorse the idea that managerial overconfidence has nothing to do with any creation of value, or even any positive effect on an M&A deal.

Roll (1986) said that bidder managers are influenced by "hubris" and are overoptimistic about deal synergies, and the evidences of his studies support the hubris hypothesis as much as other explanations such as taxes, synergy, and inefficient target management, when regarding mergers and tender offers.

Other researchers present cases in which hubris or overconfidence explain some takeovers (Aktas et al., 2007; Hietala et al., 2003; Klasa & Stegemoller, 2007). For example, Malmendier and Tate (2008), under an empirical point of view, concluded that overconfident managers complete more acquisitions. This happens more frequently when they have access to internal financing and when the merger is diversifying. Nonetheless, this has driven the market to react negatively when those bids are made, i.e., when more acquisitions or attempts of acquisitions are made, the market always reacted badly.

Other studies, like the one of Goel and Thakor (2010), went even further, suggesting that a bidder CEOs' envy causes merger waves which result from the CEO compensation increases based on firm's size (and any M&A deal will lead to larger firm size). This means that envy can cause merger waves even in the absence of real economic shocks or market misevaluation.

Indeed, the behavior of any CEO, where we include a possible managerial overconfidence, can, in fact, threat corporate activities. There are studies, which are supported by empirical evidence, that suggest that CEO's behavior threat a wide range of corporate decisions, including M&A (Bertrand & Schoar, 2003). Depending on the profile of each CEO (like age, culture, etc.), he/she will be more or less confident to resist a takeover attempt.

2.3.3. Upper Echelons Theory

The "Upper Echelons Theory" states that a firm's decision-making process may be

significantly affected by the individual characteristics of their executives. This implies that actions and decisions are, on the one hand, not based only on rational reasons, and on the other, they are affected by individual characteristics, leading to an axiomatic evidence of a company, which in this way reflects its CEO or its top manager(s) (Hambrick & Mason, 1984).

In fact, as Papadakis and Barwise (2002) stated, since the work of Hambrick and Mason (1984), a lot of emphasis "(...) has been placed on the influence of top management on corporate strategy, innovation, performance, organizational structure and planning formality" (83).

A CEO's firm may try to construct the path and the image of the firm based on their own self-portrait, which leads to information asymmetry and to act an opportunistic action against shareholders interest, only to protect their work and position.

Herman and Smith (2015) stated that CEOs, top managers or management teams members' characteristics, including past experiences, values, and personalities, affect the way they make strategic and organizational decisions.

Ultimately, the age of the CEOs is in complete connection with this theory, and in many aspects it can take the problems and paths that arise: corporate growth (Child, 1974), strategic decisions (Wiersema & Bantel, 1992), the job mobility along active life (Veiga, 1983), psychological attachment (Cannella & Lubatkin, 1993; Stevens et al., 1978) among other factors and reasons studied by diverse academics.

2.3.4. Management Entrenchment Theory

This theory suggests that managers use a variety of takeover defenses (like golden parachutes or poison pills) to ensure they can stay more time in their position (i.e., an higher tenure). Hostile takeovers are the main reason to the creation of these defensive measures, instruments or strategies, used by the target firms' CEOs when there is a takeover attempt. In fact, financial incentives that result from defensive measures encourage CEOs or managers to resist takeover attempts. The implementation of these defensive measures can be associated to CEOs and managers individual characteristics.

CEOs and managers can entrench themselves by making manager-specific investments, making them expansive to replace. These same actions derive from managerial behavior (Shleifer & Vishny, 1989), and consequently are linked to the CEOs and Managers individual characteristics.

Younger and recently appointed CEOs are given golden parachutes in order to maintain their loyalty to the firm, and as a compensation for the risk taking for accepting this new position.

These instruments and the threat of a takeover attempt also played a useful role in maintaining good corporate governance by removing bad managers and installing better ones, which covers all ages (Morck et al., 1988).

2.3.5. Shareholders Interest Theory

The Agency Theory points out for the same target as the Shareholders Interest Theory. It suggests that management resistance to proposed takeovers may be a good bargaining strategy to increase the purchase price to the benefit of the target firm's shareholders (Franks & Mayer, 1996; Schwert, 2000). Of course, this may be affected by age: the near the age to retirement, the lower or no resistance there will be, leading to the possibility of lower price deals.

2.4. Similar Research

There are already some interesting studies regarding this topic here. Some of them will be very synthetically explained, namely the most important.

Table 1. Previous Studies that Concluded about the Influence of CEOs' Age, CEOs' Tenure and CEOs' Academic Background on M&A

Authors (years)	Methods	Dependent Variables	Independent Variables	Sample	Period
Jenter and Lewellen (2015)	Multiple Regression	- Bid announcement return; - Takeover premium; - Price Run-Ups before the First Bid Announcement; - Acquirer Gains.	- CEO age; - CEO tenure; - CEO retirement age; - Hostile offer; - Tender offer; - Etc.	- Firms form the United States; - Names and ages of the CEOs retrieved from "Compustat Research Insight"; - Firms with at least $10 million in book assets; - Acquisition data come from "Securities Data Corporation's (SDC) U.S. Mergers and Acquisitions Database".	1989-2007
Kilian and Schindler (2014)	Multiple Regression	Cumulative abnormal returns (CARs) observed over a three-day event window around the acquisition announcement date.	- Age of the CEO at the announcement date of the acquisition; - Tenure of the CEO holds until the announcement of an M&A; - CEO has executed three or more acquisitions in the ten-year sample period; - CEO has a business and a technical educational background; - Board positions of a CEO in other companies; - Previous CEO experience	- M&A deals obtain from "Thomson Reuters Eikon"; - Firm-specific control variables for each company obtain from "S&P Capital IQ"; - Acquirer's return data over a three-day window around the acquisition announcement date and the market returns for the FTSE-All Share Index obtain from "Thomson Reuters Datastream".	2004-2013

Serfling (2014)	Multiple Regression	- Firm R&D expenses divided by book value of assets; - Operating leverage; - Book leverage; - Segment sales-based Herfindahl–Hirschman Index; - Natural logarithm of the number of segments in which the firm operates; - Ratio of the number of diversifying acquisitions made to the total number of acquisitions made during a fiscal year; - Ratio of the dollar amount spent on diversifying acquisitions to the dollar amount spent on all acquisitions during a fiscal year - Total risk, Idiosyncratic risk, and R&D Intensity; - Segment HHI; -Number of Segments; CEO's total portfolio vega, and CEO's vega of options granted during the fiscal year, CEO's age, etc.	- CEO Age; - Young CEO & Old Executive; - Old CEO & Young Executive; - Old CEO & Old Executive; - Successor is Younger; - Successor is Much Younger; - New CEO is Younger; - Etc.	- Financial statement data from the "Compustat" files; - Stock return data from the "Center for Research in Security Prices" (CRSP); - Files, and institutional ownership data from "Thomson-Reuters Institutional Holdings (13F) Database" - 20.973 firm-years, 2.356 unique firms, and 4.493 unique CEOs.	1992-2010
Yim (2013)	Multiple Regression	- CEO leaves office for any reason excluding death; - Firm announces an acquisition whose deal value exceeds 5% of the firm's market capitalization; - CEO compensation.	- CEO age; - CEO tenure; Log (assets); Prior year returns; ROA.	- CEOs and the acquisitions that they announce retrieved from "ExecuComp"; - 9.219 observations and respective CEOs.	1992-2007
Buchholtz and Ribbens (1994)	Multiple Regression	Resistance to a takeover attempt	- Golden Parachute existence; - CEO stock ownership; - CEO age; - CEO tenure; - Interaction between golden parachute existence and stock ownership.	406 firms submitted to a tender offer, for the north American market using sata from "Mergerstat".	1986-1989
Hill and Phan (1991)	Multiple Regression	Change in CEO compensation: change in deflated cash compensation and absolute deflated cash compensation	- Change in pay; - Pay; - Size; - Abnormal Returns; - Risk; - Tenure; - Industry Average	- Total cash compensation paid to the CEOs of firms included in a survey of executive compensation conducted by Forbes magazine; - 104 firms from seven industries	1977-1988
Hitt and Tyler (1991)	Multiple Regression	Acquisition decisions	- Industry; - Age; - Type od education; - Level of education; - Amount of work experience; - Etc.	Survey instrument mailed to 122 top executives (chosen randomly using a random-number generator from a list of 950 top executives in the southwest United States)	1991

Age has already been discussed as a variable that can explain increases in the probability of CEOs of target firms to resist takeover attempts. There are studies that have concluded about the existence of a curvilinear behavior in the age of a CEO (see Figure 1 in Section 1): on the one hand, as the age goes up the likelihood to resist a takeover attempt increases,

on the other, when it is near retirement age the likelihood to resist a takeover attempt starts to decrease. Moreover, age has influence on risk-taking, strategic decisions, having more or less financial incentives, among other aspects.

Regarding tenure, previous studies could not found relevant evidence that suggest any correlation between CEOs tenure and higher or lower willingness to resist a takeover attempt. Nevertheless, it can be considered a variable that explains the increasing influence power of a CEO: his/her power increases along with his/her tenure.

Jenter and Lewellen (2015) studied the impact of target CEOs retirement preferences on the frequency and pricing of takeover bids. Most target CEOs careers suffer when their firms are acquired, and if incentive pay does not fully compensate CEOs for their private costs, any takeover decisions from the target firm can be distorted. Consistent with the private merger costs hypothesis, they have shown that takeovers are substantially more frequent for target firms CEOs close to age sixty-five. This is due to a discrete drop in CEOs private merger costs around age sixty-five, caused by the same preference shift that also underlies the age sixty-five.

Kilian and Schindler (2014) stated that different CEO characteristics/personal aspects influence short-term M&A performance. By analyzing the acquisition announcements of companies of the Financial Times Stock Exchange 100 share index (focus their set on FTSE 100 companies which act as a buyer in an M&A transaction) in the United Kingdom within the period from 2004 to 2013, they have found that CEO characteristics have a crucial influence on short-term M&A performance. In fact, they have found that "(...) young CEOs have significantly weaker short-term performances then acquisitions undertaken by older CEOs" (p. 56). In contrast, "(...) acquisitions undertaken by long-tenured CEOs are negatively perceived by the stock market whereas the overall tenure of a CEO in a company has a positive (...) effect" (p. 56). Serfling (2014) reached very interesting conclusions, allowing us to state that CEOs age has an impact on his/her risk-taking behavior. The most important conclusions were:

- Risk-taking behavior decreases as CEOs age;
- Older CEOs invest less in R&D and in manage firms with more diversified operations;
- Firms award older (younger) CEOs less (more) risk-taking incentives and that less (more) risky firms tend to hire older (younger) CEOs.

Yim (2013) documented that a firms' acquisition propensity is decreasing in the age of its

CEO: a firm with a CEO who is 20 years older is 30% less likely to announce an acquisition.

Using a logistic regression analysis and recurring to seven control variables (firm size, firm performance, premium, stock concentration, institutional stock ownership, proportion of outsiders on board, and directors' stock ownership), Buchholtz and Ribbens (1994) stressed some interesting evidences:

- Golden parachutes do not have significant effect on the likelihood that a target firm will resist a tender offer;
- The more stock a CEO holds the lesser will be his/her likelihood to resist a takeover attempt;
- There is no evidence that golden parachutes and CEOs stock ownership interact, in order to affect target firms resistance to takeover attempts;
- The effect of CEO age on takeover resistance is curvilinear increasing until the age of fifty-six, starting to decreasing from that age;
- There is no evidence that the length of CEOs tenure in a position affects takeover resistance.

Other studies have also analyzed the influence of CEOs and managers' age and tenure on different topics. Hill and Phan (1991) suggest that tenure has influence on the strength of the relationship between absolute pay and firm size, absolute pay and firm risk, and changes in pay and stock returns. Hitt and Tyler (1991) strategic decision models vary according to industry and executive characteristics of age, educational degree type, amount and type of work experience.

Additionally, it can be said that every CEOs academic background, either his/her level of education or subject of specialization, has influence on M&A deals decisions. Definitely a CEO with no qualifications could have a less/higher resistance to a takeover attempt then a CEO with any kind or level of qualifications.

Furthermore, cultural differences have a positive or negative impact on M&A performance depending on the outcome. Examples of outcome are the capacity of the CEOs to manage cultural differences and their own culture/nationality, which can result in a major factor of impact in the performance of a company. Clearly, this will affect the outcome of a M&A process, and particularly the outcome of a takeover.

Table 2. Previous Studies that Concluded about the Influence of CEOs' Cultural Aspects on M&A

Authors (years)	Methods	Dependent Variables	Independent Variables	Sample	Period
Tosi and Greckhamer (2004)	Multiple Regression	- CEO total pay (TC), indicative of the average total wealth that the CEO obtains from a firm in each culture; - Ratio of CEO pay to the lowest level employees (CEO/Worker), measure of the extent to which performance risk is transferred to the CEO; - The ratio of CEO pay to the lowest level employees (CEO/Worker), being an indicator of pay inequality.	- Power distance; - Uncertainty avoidance; - Individualism-collectivism; - Masculinity-femininity.	23 countries comprising 115 data points	1997-2001

Tosi and Greckhamer (2004) examined how cultural values are related to different elements of CEO compensation in different countries. The data for the dependent variables were obtained from the Towers Perrin Worldwide Total Remuneration Reports for the period of 1997–2001. These authors were interested in the relationship between the cultural values and the CEO compensation. Once Tosi and Greckhamer controlled macroeconomic variables and other variables, which represent proxies for corporate governance and may be related to CEO compensation, they concluded that cultural dimensions can contribute to understand cross-national CEO compensation. Nevertheless, particular forms of CEO compensation do not mean the same thing in different cultures, but rather carry different symbolic connotations depending on the dominant values in a society.

Additionally (not mentioned in table 2), Stahl and Voight (2004) concluded that, whether cultural differences have a positive or negative impact, M&A performance depends on the outcome variable under investigation, namely the nature and extent of cultural differences, the integration approach taken, and the interventions chosen to manage cultural differences. In order to reach this conclusion, they had stock market-based performance measures, accounting-based measures and social-cultural integration outcomes, as dependent variables for a sample of 8.993 M&A deals. The observations occurred between 1970 and 2002.

As stated before, managerial overconfidence can account for corporate investment distortions because managers overestimate the returns of their investment projects.

There are studies suggesting that overconfidence matters more in firms which are equity dependent, leading to the need of the board of directors to employ alternative disciplinary measures, such as debt overhang, and which can suffice to constrain overconfident CEOs (Malmendier & Tate, 2005).

Table 3. Previous Studies that Concluded about the Influence of Behavioral Bias on M&A

Authors (years)	Methods	Dependent Variables	Independent Variables	Sample	Period
Croci et al. (2012)	Multiple Regression	- Log of the total CEO compensation, which is measured by the sum of the cash compensation; - Structure of CEO pay, and it is measured as the ratio of equity-based compensation to total compensation	- Family control; - Firm performance; - Corporate Governance; - CEO compensation	- CEO compensation data for Continental European firms from "BoardEx"; - Ownership data obtain from the "Thomson One Banker Ownership" module; - Financial drawn from "Datastream" / "Worldscope"; - 754 listed firms with 3731 firm-year observations from 14 countries	2001-2009
Long and Walkling (1984)	Multiple Regression	Managerial Resistance	- Bid Premium; - Bid induced increments in existing share and option wealth; - Conglomerate; - Controlled company; - Etc.	105 tender offers resisted on the Securities and Exchange Commission	1972-1977

Thus, the background history of M&A deals, in which a specific CEO was involved, can indeed lead to patterns in regarding its characteristics.

This enhances the assumption that the strategic decisions made by top executives or CEOs are based not only on rational decisions but can also stem from their "heads". Furthermore, the conflicts of interest between shareholders and managers are undoubtedly a proof that a CEOs way of thinking leads to more or less agency problems, leading this, consequently, to a market for corporate control (Coffee, 1986; Jensen & Meckling, 1976; Jensen & Ruback, 1983).

There is a relationship between managerial actions and bid premium size, bidder nationality, conglomerate offers, among others aspects. It is a fact that the stock owned by executives has an empirical proven influence on the lower likelihood to resist takeover attempts.

2.5. Critical Analysis of the Literature Review

In the last years, some interesting studies with relevant information and conclusions have been published. Nonetheless, the hypotheses that will be tested in the present research have been only partially analyzed by previous studies (namely, age and tenure).

There are few researches that focus their aim on the European market. Furthermore, they majorly concentrated on financial incentives or quantitative measurable variables, rather then in specific individual characteristics in order to find variables that can affect the decision-making process and the higher or lower willingness of target firms' CEOs to resist

takeover attempts.

Nowadays there is still a lack of studies, which result in an empirical evidence of behavioral aspects that can influence economic agents, like the CEOs, that could explain certain processes or transactions that happened throughout history.

Characteristics like a CEOs' age, tenure, nationality, academic background and gender, have, in fact, something to do with the willingness to resist a takeover attempt, leading consequently, for example, to the failure of many M&A transactions or changes in the strategic course of a company.

In turn, the cultural difference impact (where nationality and academic background can be considered as cultural and social status aspects) cannot be solely addressed after the transactions are successfully concluded. The merger between Daimler and Chrysler, for example, did not work out because of cultural aspects. Nonetheless, could it be that by analyzing and studying evidences that address the role of the leader who takes the decisions in a company, we would conclude about the impact of the leader decisions in the success of any M&A transaction? Clearly, this addresses the job of the CEO.

3. Hypotheses, Methodology and Data

This section starts with the formulation of the hypotheses that will be later submitted to statistical analysis. Additionally, an analysis of previous similar studies that have great relevance to this research will be made, which, in turn, will allow us to construct and explain the methodology used in this dissertation. On a last topic, the data used in this dissertation will be explained (the database, the sample chosen, the criteria for our sample, and the source of our data).

3.1. Hypotheses

As a result, and based upon the literature review, some studies found evidence of the likelihood to resist a takeover attempt due to a CEO profile (according with some pre-defined characteristics). However, in order to fill the gap in the literature, this dissertation defines five different hypotheses to test:

- Hypothesis 1: The likelihood to a target firm's CEO to resist a takeover attempt increases until the retirement age, decreasing, on the contrary, from that moment on;
- Hypothesis 2: The likelihood to a target firm's CEO to resist a takeover attempt increases with his/her tenure;
- Hypothesis 3: Different academic backgrounds will lead to different percentages on the likelihood to resist takeover attempts;
- Hypothesis 4: Different nationalities or cultures will lead to different likelihood to resist takeover attempts;
- Hypothesis 5: Gender of the target firm's CEO influences the likelihood to resist a takeover attempt.

Age and tenure have already very often been used as explanatory variables to test, not only the probability of a CEOs to resist a takeover attempt, but also their effect on the compensation that top managers would receive in the case of a successful M&A transaction. This is connected to the existence of defensive tools or tactics (like golden parachutes or even the target firm's stock owned by the senior executives), which enhance the probability to reduce the occurrence of takeover attempts. For example, Jenter and Lewellen (2015) found strong evidence that target firms' CEOs preferences affect merger activity by using retirement age as proxy for CEOs private merger costs.

Yim (2013) examined the incentives that CEOs face to undertake acquisitions, concluding that following an acquisitions process, they experience permanent and substantial gains in compensation. However, the author states that "(...) with respect to one dimension of their job - undertaking acquisitions - prevailing compensation practices create stronger incentives for younger CEOs than for older ones" (271), and that those incentives "(...) can lead to overinvestment and value destruction" (271). Nevertheless, the researcher demonstrated that "(...) acquisitions are accompanied by large, permanent increases in CEO compensation, which create financial incentives for CEOs to pursue acquisitions earlier in their career" (250).

In what concerns the academic background of the target firms' CEOs, this was a topic of many studies in order to explain some organizational structures and some of the senior executives decisions. For that reason it is very interesting to know if different CEOs act differently according with non-identical academic backgrounds. Thus, it is important to understand if target firm's CEOs with different academic backgrounds have a higher or lower resistance when facing a takeover attempt.

Regarding the aspect of the CEOs nationality, it will be analyzed if target firm's CEOs with different nationalities show a different behavior when facing a takeover attempt. Nevertheless, considering the high number of nationalities, these ones will be grouped into cultural groups. For example, CEOs with American and British citizenship are considered in the same cultural group, due to cultural similarities and historical ties.

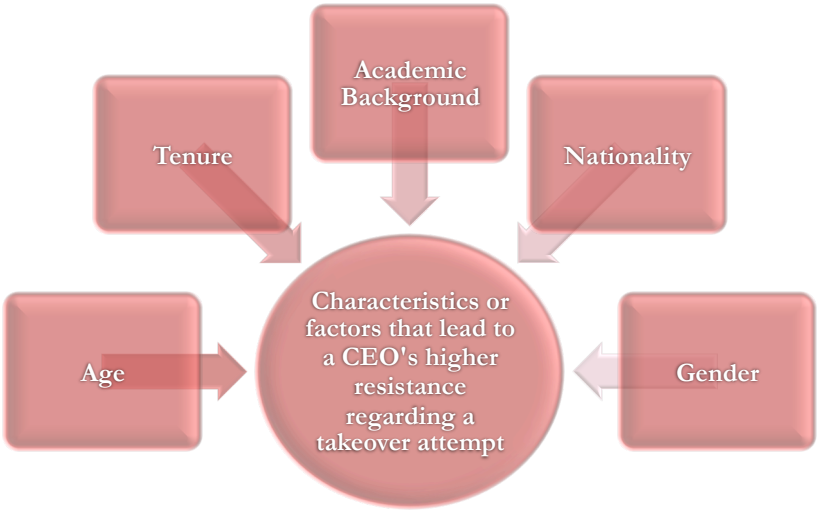
It is well know the importance that culture has in the business world. Katzenbach and Aguirre (2013) state "recognizing the importance of culture in business is not the same thing as being an effective cultural chief executive"[6]. This means that, on the one hand, the nationality or culture of a CEO is important, and, on the other, his/her capability to lead and control a firm with people from different cultures is crucial in order to prevail the best working environment. This last observation has a higher importance when working with top executives from different cultures. In addition, Katzenbach and Aguirre (2013) stated, in reference to the work of Kotter and Heskett (1992), that there are studies that stress consistent correlation between robust, engaged cultures and high-performance business results.

Finally, the Gender variable is, indeed, an important issue to be analyzed, considering there are no studies addressing this issue on a higher or lower willingness from a target firms'

[6] Source: https://www.strategy-business.com/article/00179?gko=6912e (visited on 26/08/2018)

CEOs to resist a takeover attempt.

Figure 6. Hypotheses Analyzed in this Dissertation



3.2. Methodological Aspects of Similar Studies

Table 4. Methodological Aspects of Similar Studies

Studies	Jenter and Lewellen (2015)	Yim (2013)	Aktas et al. (2012)	Croci et al. (2012)	Buchholtz and Ribbens (1994)
Objective	Impact of target CEOs' retirement preferences on takeovers	The acquisition behavior regarding the CEO age	CEO narcissism affects the M&A process	Impact of family control and institutional investors on CEO pay packages in Europe	Influence of CEOs profile and financial incentives in takeover resistance
Sample - Size	56,183 firm-years (7,992 firms)	7,999 of 29,219 observations	146 deals (292 CEOs)	754 listed firms with 3731 firm-year observations	406 firms
Sample - Country	United States Market	S&P 1500 firms	United States Market	European Market	North American Market
Sample - Years	1989-2007	1992-2007	2002-2006	2001-2008	1987-1989
Industry	Multiple	Multiple	Multiple	Multiple	Multiple
Statistical Analysis	Regression	Regression	Regression	Regression	Regression
Database	- Panel of CEOs for U.S. public firms from Fee, Hadlock, and Pierce (2013); - Names and ages of the executives for U.S. listed firms extracted from Compustat - Acquisition data from Securities Data Corporation's U.S. Mergers	- Collects compensation data on the top management team of S&P 1500 firms, that includes data on CEO age and tenure from *ExecuComp*; - Data on M&A transactions from *Thomson's SDC Platinum* database	- Sample of acquisitions is extracted from the *Securities Data Company's (SDC) U.S. Mergers and Acquisitions Database*	- CEO compensation data for Continental European firms from *BoardEx* - Ownership data from the *Thomson One Banker* Ownership module - Financial data from *Datastream/Worldscope*	*Mergerstat* Annual Reports

Besides the conclusions, trends and behaviors found out by other studies, it is important to consider, the kind of methods they have used.

The methodologies taken in practice are of quite relevance to the present dissertation. In fact, to find out the empirical tendencies that the present research study tries to find, it is essential to understand the methodological differences and steps of analysis taken by similar studies (see table 5). In addition, one other reason to choose this topic has to do with the sentiment of the necessity to compare the results that are reached in this dissertation, with other research studies (that analyze different markets on different periods of time), thus making sense to differentiate methodologies. This will also allow this dissertation to create new knowledge by validating different hypothesis that result from assuming new assumptions and from testing different variables, comparing to previous works.

3.3. Methodology

A linear regression model is used when the objective is to study the relationship between a dependent variable (in this case, the target firms' CEOs resistance to takeover attempts) and one or more independent variables (age, tenure, academic background, nationality and gender). In other words, the theory specifies a set of precise, deterministic relationships among variables, based in fundamental assumptions like linearity, full rank, exogeneity of the independent variables, homoscedasticity and no autocorrelation, exogenously generated data and normal distribution (Greene, 2012).

In this case, and because the dependent variable only has one of two results ("0" if the target firm's CEO did not resisted the takeover attempt; "1" if the target firm's CEO resisted the takeover attempt), there will be used, like in other studies, a logistic or binomial regression model. A logistic or binomial regression is one where the log-odds of the probability of an event are a linear combination of independent or predictor variables. It can be generalized to more than two levels of the dependent variable: categorical outputs (that are used in the academic background and nationalities of the CEOs) and ordered outputs.

Like other studies, and adopting a suitable approach, this dissertation examines the capacity of our independent variables to explain any changes in the value of the dependent variable: the takeover resistance from the part of the CEOs of companies that are the aim of a takeover attempt.

The regressions were performed using the statistical software SPSS. The following variables were used in our binomial regression:

- TAR_i = dependent variable regarding resistance of the target firm's CEO to the takeover attempt, with , [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223];
- AGE_i = independent variable regarding the age of the target firm's CEO, [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223];
- TEN_i = independent variable regarding the tenure of the target firm's CEO, [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223];
- ACB_i = independent variable regarding the academic background of the target firm's CEO, [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223];
- NAT_i = independent variable regarding the nationality of the target firm's CEO, [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223];
- GEN_i = independent variable regarding the gender of the target firm's CEO, [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223];
- $DEAL\_VALUE_i$ = control variable regarding the value (in euros) of the potential deal, [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223];
- $STOCK\_ACQUIRED_i$ = control variable regarding the stock acquired (in percentage) of the potential deal, [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223];
- $MARKET\_CAP_i$ = control variable regarding the market capitalization (in euros) of the target firm on the moment the potential deal could go ahead, [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223];
- $TOTAL\_ASSETS_i$ = control variable regarding the total assets (in euros) of the target firm on the moment the potential deal could go ahead, [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223];
- $STOCK\_PRICE_i$ = control variable regarding the stock price (in euros) of the target firm 3 months prior to the moment the potential deal could go ahead, [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223];

- $\frac{DEAL\_VALUE_i}{TOTAL\_ASSETS_i}$ = RATIO Q = control variable which evaluates the height that the deal value as on the total assets of the target firm, [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223];
- $DEAL\_VALUE_i - MARKET\_CAP_i$ = RATIO P = control variable which represents the premium offered to the target company, [Scenario 1: i = 1,...,378; Scenario 2: i = 1,...,323; Scenario 2: i = 1,...,223].

The majority of the previous studies have used regression models in order to test their assumptions and variables. An example is the one regarding the research study lead by Buchholtz and Ribbens (1994), who recurred to a logistic regression analyses (Norusis, 1990). In fact, the present research study will adapt the methodology used by the last authors cited, considering the existing similarities: the same dependent (dichotomous) variable – takeover resistance of the target firm CEOs - and similar independent variables, namely, CEO age and tenure. Moreover, the authors consider seven control variables (firm size, firm performance, premium, stock concentration, institutional stock ownership, proportion of outsider on a board, and directors ownership), which are the basis of the control variables used in this work.

Nevertheless, this dissertation, despite adapting the methodology used by Buchholtz and Ribbens, will not be assuming any compensation values if the target firms' CEOs do not resist a takeover attempt, being only assumed individual characteristics of the CEOs themselves as independent or explanatory variables.

3.3.1. Dependent Variable

The resistance by the CEO of the target firm to a takeover attempt is considered in this dissertation as the dependent variable. This variable is being analyzed as the one that is influenced by explanatory variables, and hence changes in these variables can explain a higher or lower resistance from the target firms' CEOs to any takeover attempt. The resistance to a takeover attempt is a dichotomous variable: values for the dichotomous dependent variable were stipulated as "0" when the transactions were concluded, meaning that the target firm's CEO did not resist the takeover attempt; "1" were stipulated when the target firm's CEO resisted the takeover attempt.

Finally, in order to evaluate the explanatory capability of the independent variables on the value of the dependent variable, the analysis is made according to the transactions and not

solely on the CEO. Considering that the data has more transactions then CEOs, this means that there are transactions with the same CEO. It is acceptable to test two transactions with the same CEO if the values of at least one control variable differ, and/or certain individual characteristics (like age and tenure) of the CEO have changed (the same firm could be target of a takeover attempt in different years). The objective in allowing the same CEO among different transactions, but showing a different age and tenure, is to study the impact of the individual characteristics, and not the CEO by itself.

3.3.2. Independent Variables

Our independent variables are considered in order to explain how variations in their values explain changes in the dependent variable values.

The first considered explanatory variable of interest represents the age of the CEO at the moment the takeover attempt occurred. Analyzing previous studies, like the ones from Jenter and Lewellen (2015) or Yim (2013), CEO's age will be tested, on the one hand, as a linear variable and, on the other, as grouped into differently defined categories. Regarding the CEO's age groups, this dissertation adapts the same methodology used by Levi et al. (2010), but limited by the number of observations according to the age. Considering the subjectivity that would be placed when categorizing the data observations in this dissertation, it is more suitable to categorized in five-year age groups, instead of "younger", "medium" and "old", as Yim (2013) did in his research study. Thus, there will be seven age groups: "Between 25 and 40 years", "Between 41 and 45 years", "Between 46 and 50 years", "Between 51 and 55 years", "Between 56 and 60 years", "Between 61 and 65 years", and "More then 65 years". Additionally, like Buchholtz and Ribbens defended, it is included CEO age squared in the analysis to model a curvilinear effect of CEO age and the resistance to a takeover attempt, for each one of the data scenarios.

In terms of CEOs tenure, this variable is measured as the number of years the CEO holds in his/her position until the year of the potential or effective takeover attempt. Taking in consideration similar works, Kilian and Schindler (2014), following the study lead by Fung et al. (2009), defined CEOs tenure as a measure of CEOs commitment to the firm and as a signal for experience. In turn, Yim (2013) used CEOs tenure as a control variable to explain de degree of power of CEOs in the companies they manage. Like CEO's age, CEOs tenure will be tested as a linear variable and grouped into different defined categories, namely, "Between 0 and 5 years", "Between 6 and 10 years", "Between 11 and

15 years", "Between 16 and 20 years", and "More then 20 years"

The other variables - academic background, nationality and gender - were only categorized into groups. In the case of academic background, and contrary to previous studies, that only grouped between CEO, with none academic background and those with academic background, it will be divided between educational groups, considering the extensive number of degrees that the CEOs have: "Economics and Business" (with value "1"), "Engineering" (with value "2"), "Law" (with value "3"), "Mathematics and Statistic" (with value "4"), "Medicine and related" (with value "5"), "Natural Sciences" (with value "6"), "Social Science" (with value "7"), and "No qualifications" (with value "0"). Yet, and it is important to underline, a CEO with no qualifications is a CEO with no high education formation, and all of the educational groups refer to high education degrees (bachelors, masters or doctoral programs).

The nationalities of the target firms' CEOs on the data are also categorized into groups, considering the large number of nationalities. They were grouped based on cultural and historical ties between the many countries from which the CEOs are from: "Anglo American" (with value "0" because it is the largest group in terms of observations), "African" (with value "1"), "Arabian" (with value "2"), "Asian" (with value "3"), "Balkan and Slavic" (with value "4"), "Francophone" (with value "5"), "German" (with value "6"), "Latin" (with value "7"), and "Scandinavian" (with value "8"). Nevertheless, when analyzing the data of "Scenario 3" there will be less nationality groups, considering the number of observations: "Anglo American" (with value "0"), "Balkan and Slavic" (with value "1"), "Francophone" (with value "2"), "German" (with value "3"), "Latin" (with value "4"), "Scandinavian" (with value "5"), and "Other nationalities" (with value "6").

Finally, the Gender variable is categorized between "Female" (with value "0") and "Male" (with value "1").

3.3.3. Control Variables

Target firm's values (market capitalization, total assets, stock price three months prior to the acquisition) and deal-specific variables (deal value, stock acquired, premium of the offer, and ratio between the deal value and target firm's total assets*)* were included as control variables to capture the effect of different characteristics of the target firm's as well as the transaction values on the different value regarding the dependent variables.

This dissertation neither assumes any kind of compensation variable when the target firm's CEO leaves it, due to the acquisition of the company, nor assumes any stock ownership by the target firm's CEO. This is the main justification to the use of control variables regarding deal values and firm size: to understand if the individual characteristics of the target firm's CEO have, in fact, relevance in explaining an higher or lower resistance to takeover attempts, not being influenced by financial incentives or compensations offered to the CEO if he/she resists.

3.4. Data

The period of time, from which data should be taken for analysis, must respect two assumptions. Firstly, it must respect the need of available information for each transaction collected. Then, and only if the first assumption is respected, it must have in account a stable period of time.

The first assumption is assumed in order to secure a period of time with the relevant and required information regarding the target firms' CEOs profiles in a takeover attempt.

The second assumption is assumed with the purpose to use a period of time (maximum of 10 years, but not less than 5 years) in which, preferentially, there are no major economical occurrences that can lead to skewed results. For example, collected observations between the period of 2007 and 2009 can lead to abnormal results due to the occurrence of the global financial crisis which started with the one in the subprime mortgage market in the United States of America.

Furthermore, and in order to depth the literature presented in this work (or fill the literature gap), the observations in the data must belong to European companies as the subjects to be studied, because the majority of similar studies centers their attention on the North American market.

The chosen observations were not simply acquired. The most difficult task was related with the information regarding the CEOs profiles because there was not a complete database with that information. Due to that reason, many sources were consulted in order to obtain the information needed, namely:

- The transactions, (i.e., the acquisitions) were collected from "Bureau Van Dijk - Zephyr";
- The Management Board and the CEOs from the companies that engaged in an M&A deal were withdrawal from "Bureau Van Dijk - Amadeus";

- The individual profile of each CEO retrieved from annual reports (if available) and other sources (companies websites, "Bloomberg Business", "Reuters Business", "Yahoo Finance", "LinkedIn", among others).

Table 5. Search Strategy Regarding our Research Study

Step	Step - Description	Step - Result[7]	Search Result[8]
1	Time period: on and after 01/01/2006 and up to and including 31/12/2016 (rumoured, completed-confirmed, completed-assumed, announced)	1.239.693	1.239.693
2	Country (primary addresses): Austria (AT), Belgium (BE), Denmark (DK), Finland (FI), France (FR), Germany (DE), Greece (GR), Iceland (IS), Ireland (IE), Italy (IT), Luxembourg (LU), Netherlands (NL), Norway (NO), Portugal (PT), Spain (ES), Sweden (SE), Switzerland (CH), United Kingdom (GB) (Acquiror OR Target OR Vendor)	601.404	375.334
3	Deal value (EUR): all deals with known value (including estimates)	1.076.547	188.676
4	Deal type: Acquisition	650.663	7.108
5	Percentage of stake: Percentage of initial stake (min: 0 % max: 50 %); Percentage of acquired stake (min: 0 % max: 100 %); Percentage of final stake (min: 51 % max: 100 %)	581.439	33.885
6	Listed/Unlisted/Delisted companies: listed acquiror, listed target	70.177	728
			728

The initial search strategy compressed specific transactions between the years of 2006 and 2016, within a limited selection of countries from where the firms have their social address. Nonetheless, and in order to use a more proper data for the present research study, the initial sample was reduced according to the following criteria:

- All deal values, in euros, must be known (including the estimate values) in order to confirm that, although some deals were not made official there was willingness by the acquirers to accomplish the deal;
- The M&A deal type selected was "Acquisitions deals", thus excluding "Mergers", "IPOs", "Management Buy-Out", "Management Buy-in", among others deal types;
- The acquirer, after an acquisition attempt, should have a higher value then 50% of final stake in the target firm, meaning that the buyer will have control of the firm and a higher possibility of exchanging the CEO in office (thus giving more reasons to the target firm's CEO to resist the takeover attempt);

[7] Number of total deals for each specific step
[8] Number of observations and combining steps

- In order to allow or smooth the search of all the information needed, only the deals with listed companies were selected.

This initial search strategy was implemented with the objective to enlarge the data in order to widen the possibilities of statistical analysis. Thus, the initial selected data presented a total of 728 observations (see Table 4). From those 728 observations it was decided to create different "scenarios" of analysis, each one of them with samples that are different in terms of scale.

Scenario 1

The first scenario adds new criteria in order to avoid the existence of duplicated transactions (with identical deal values or equal dates), namely:

- If a same firm received multiple offers, it was only assumed the first offer;
- If a same firm was the target for more then one takeover attempt in the same year, it was only considered one of the offers if the profile of the CEO did not change;
- If a company shows more then one takeover attempt in the same year, and does not present any exchange in his/her CEO profile, in the deal value and in the percentage of stock acquired, it was assumed only the last entry deal;
- If a company does not present the necessary information regarding the target firm's CEO profile (age, tenure, academic background, nationality and gender), some important target firm financial values (market capitalization, total assets and stock price 3 months prior to the deal), the deal value and the percentage of stock acquired, then the acquisition is not taken into consideration.

With these additional criteria it were reached a total number of 378 observations. These transactions respect the period chosen above and the selected markets.

Scenario 2

Starting from the 378 observations that are compressed in "Scenario 1", "Scenario 2" will consist on a sample that will focus only on target firms from the European market. Thus, it will represent a mix between Eastern and Western Europe countries (particularly those that are part of the European Economic Area), namely Austria, Belgium, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Macedonia, Norway, Netherlands, Poland, Portugal, Romania, Spain, Sweden, Switzerland and United Kingdom.

With this sample – a total of 323 observations - it will be possible to carry out an evaluation of the probability to resist a takeover attempt by the CEOs of companies that have their major presence in the European market. This will allow the comparison of our results with the conclusions reached by other studies that refer to the North American market.

Scenario 3

Between the years of 2007 and 2011, the western world overpassed the most difficult financial crisis of the last hundred years. The European countries, particularly, went through a sovereign debt crisis. In fact, several Eurozone member states (e.g., Greece, Portugal, Ireland, Spain) were unable to repay or refinance their government debt or to bail out over-indebted banks under their national supervision without the assistance of third parties like other Eurozone countries, the European Central Bank, or the International Monetary Fund (IMF). This lead to the implementation of austerity governmental plans among almost all European countries, with significant adverse economic effects.

Thus, and in order to repeal the negative effects that result from the financial crisis (2007-2009), and considering that there is no existence of remarkable or complicated legislation made in that time that can affect M&A activity, the present scenario will only compress the observations between January 1st of 2012 and December 31st of 2016. Starting from the 323 observations from "Scenario 2", it was reached 211 final observations.

4. Results

This section presents a quantitative analysis of the data, which are the basis of the research made in this dissertation, in order to give a general description of the CEOs profiles and transactions studied here. In addition, it is also present in this section a descriptive analysis for each of the three scenarios already referred in Section 3.

4.1. Quantitative Analysis of the Data

The following tables present a quantitative analysis of the data. This will allow us to see an overview regarding each one of the scenarios discussed in the last section, and then to proceed to an analysis and an evaluation of the statistical significance of the different hypotheses formulated in Section 2.

Scenario 1

The present scenario has a wide range of ages and tenure regarding the target firms' CEOs (see Table 6 and Table 7).

Table 6. Statistical Values Regarding the Acquisitions Deals of "Scenario 1"

Deals	Number	Value (in thousand euros)				% of acquisition			
		Min	Max	Ave	Med	Min	Max	Ave	Med
2006	11	103.104,00	19.643.171,00	3.113.391,61	1.264.753,00	5%	100%	76%	91%
2007	22	2.068,00	64.590.599,98	9.284.105,87	2.992.666,50	27%	100%	89%	100%
2008	19	14.672,95	83.875.250,00	8.611.041,48	698.762,73	23%	100%	86%	100%
2009	18	20.391,29	35.192.161,92	5.208.384,97	335.559,06	10%	100%	87%	100%
2010	23	2.225,69	21.645.909,00	3.002.135,53	1.613.019,00	21%	100%	91%	100%
2011	27	39,99	19.182.177,55	3.054.209,17	932.623,00	26%	100%	85%	100%
2012	27	791,00	13.271.496,85	1.666.267,22	648.794,00	2%	100%	81%	100%
2013	45	791,00	21.045.426,00	3.192.240,63	1.180.478,00	15%	100%	87%	100%
2014	87	1.018,82	116.616.040,47	12.328.431,19	2.197.458,00	18%	100%	95%	100%
2015	50	834,18	72.237.987,00	6.649.443,41	1.321.694,00	14%	100%	92%	100%
2016	49	175,15	14.134.848,00	2.091.792,79	644.523,00	39%	100%	91%	100%
Total	**378**	**39,99**	**116.616.040,47**	**5.953.984,74**	**1.099.694,92**	**2%**	**100%**	**89%**	**100%**

It is interesting to point out that according Table 7, the minimum age of the target firms' CEOs registered in our data belongs to a male Indian CEO without a high academic qualification, who established a technological firm, and did not resist the takeover attempt. On the other hand, the oldest CEO is a Japanese man, with the age of eighty-one, who resisted when his firm faced a takeover attempt. Additionally, regarding the tenure of the

target firms' CEOs that faced a takeover attempt, there are (in the data) many CEOs with less than one year in this position when the firm they manage faced a takeover attempt, and one CEO that was thirty-nine years in office when resisted a takeover attempt.

Table 7. Statistical Values Regarding the CEOs in "Scenario 1"

Deals	Number			Age				Tenure			
	Male	Female	Total	Min	Max	Ave	Med	Min	Max	Ave	Med
2006	11	0	11	41	64	52	49	0	6	3	3
2007	21	1	22	32	66	54	57	0	20	6	4
2008	19	0	19	37	74	56	56	0	22	7	3
2009	18	0	18	37	68	52	51	0	25	8	3
2010	23	0	23	42	76	54	52	0	18	6	3
2011	27	0	27	43	81	57	55	0	33	7	5
2012	26	1	27	41	67	55	55	0	18	6	5
2013	44	1	45	39	69	52	50	0	19	7	5
2014	84	3	87	37	70	53	52	0	39	7	5
2015	48	2	50	28	71	54	55	0	20	5	3
2016	46	3	49	39	78	56	55	0	30	6	4
Total	**367**	**11**	**378**	**28**	**81**	**54**	**53**	**0**	**39**	**6**	**4**

In Figures 7 and 8 it is present a synthetic analysis of the data in terms of age and tenure intervals (according to the groups that were stipulated in Section 3), and it is also present the percentage of target firms' CEOs that resisted a takeover attempt.

In fact, on the one hand, our data seems to show a curvilinear pattern between the age of a CEO and his/her resistance to a takeover attempt. On the other, CEOs tenure seems to present a non-curvilinear behavior, with the probability to resist a takeover attempt decreasing as the years a CEO in that position increase.

Curiously, Buchholtz and Ribbens (1994), when analyzing the acquisitions made in the North American market during the years of 1987 and 1989, conclude about curvilinear behavior between the CEOs' age and its effect on a higher or a lower probability of a takeover resistance. They affirmed that at the age of fifty-five years a target firm's CEO is more willing to resist a takeover attempt, decreasing from that point forward. Additionally, they have stressed out that there was no evidence that the length of a CEO's tenure in that position has any consequence in a higher or lower takeover resistance.

Consequently, it can be said that when statistically analyzing our data, there will be similar conclusions like the ones reached by the authors cited (whose work was based on a different period of time in a different market).

Figure 7. Target Firms' CEOs' Age and the Percentage to Resist a Takeover Attempt ("Scenario 1")

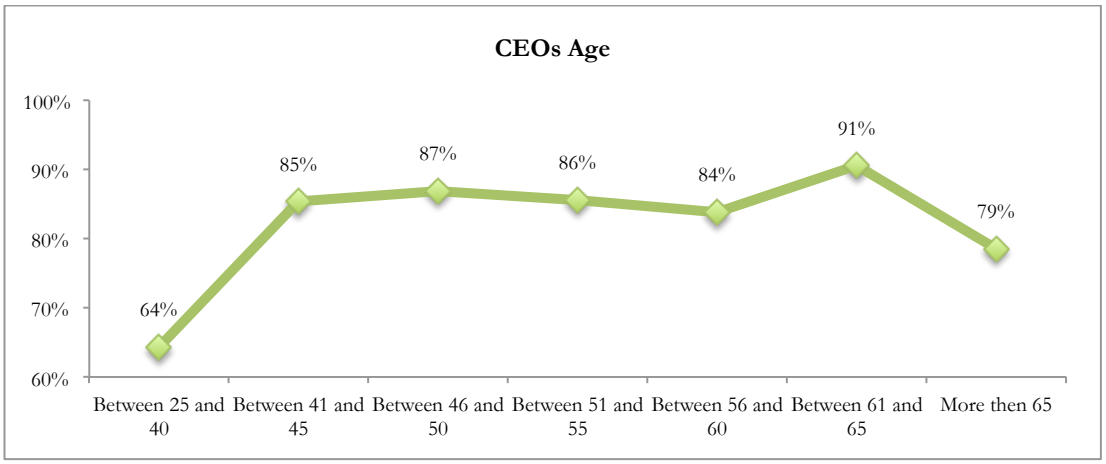
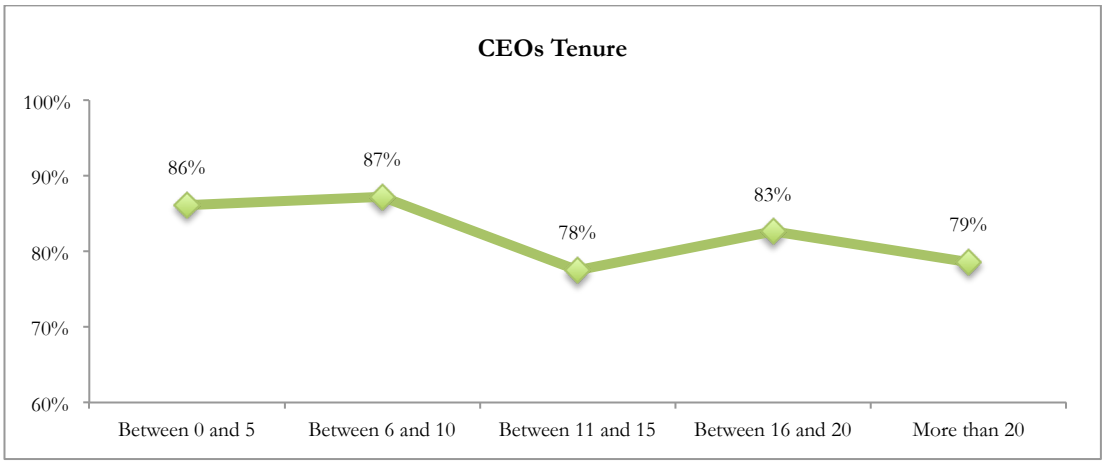


Figure 8. Target Firms' CEOs' Tenure and the Percentage to Resist a Takeover Attempt ("Scenario 1")



Nevertheless, these results can be also explained by other reasons, not exactly the youngness of CEOs to stay in their position: recently appointed to office as CEOs, a longer tenure which, among other aspects, can mean a higher attachment to the position. These are some of these other aspects:

- Existence of interim CEOs (ex., Orient-Express Hotels Ltd.) or CEOs who were appointed by legal entities due to bankruptcy matters (ex., Ssangyong Corporation), who could have nothing to loose in the case of a successful occurrence of a takeover attempt, and so their action is different from the others;
- Existence of CEOs who are founders or co-founders of the target firm they manage (ex., Ubisoft Entertainment S.A., Yoox SPA., Minera Irl Ltd.); CEOs that are part of the family that controls the target firm they manage (ex., Laurent-Perrier SA., Suzuki

Motor Corporation); CEOs, who are so important, that they have an almost untouchable position;

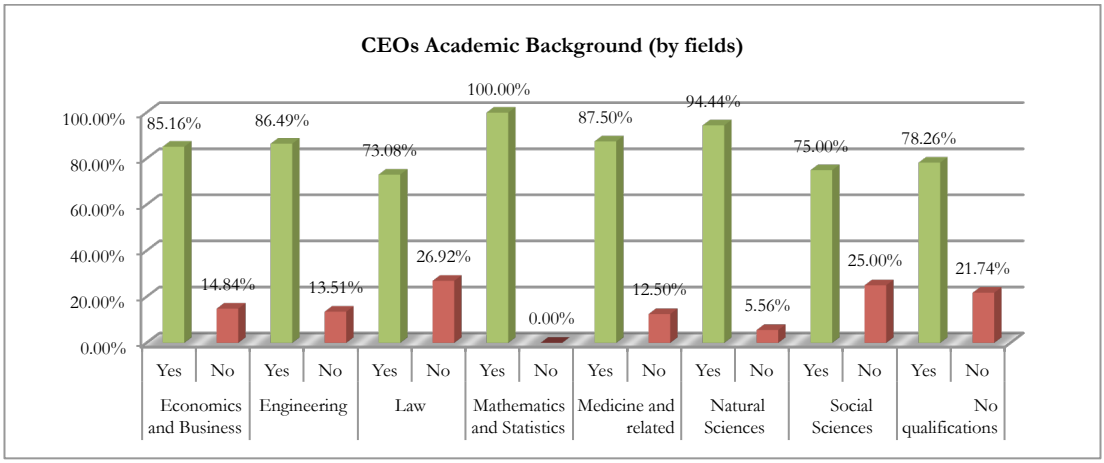
- Existence of companies that are part of a bigger group, and whose CEOs must comply with the decisions from the part of the general management board (ex., Bank Millennium S.A., Fromageries Paul Renard S.A., Ceylon Leather Products PLC., National Societe general Bank SAE.);
- Existence of companies that, when successfully acquired in a takeover process, approved on a pre-agreement with the acquirer in order to maintain the same CEO in office (ex., Thyssenkrupp AG., Bank Zachodni WBK S.A.).

Regarding the possibility of different academic backgrounds leading to different percentages on the likelihood to resist takeover attempts, among the 378 CEOs observed, we obtained a wide difference between the academic classifications of each of them. In this sense, due to the small number of observations for each higher education formation – unless in Economics and Management, that represents 48%, and Engineering, that represents 29% - the academics background were grouped into fields of study (see "Section 3.3. Methodology"). The present hypothesis will be statistically tested in categories, because it is an ordinal qualitative variable: a broad category for any variable that cannot be counted (it has no numerical value). Analyzing the data in the present dissertation, it can be seen that there is no apparent evidence of any relation between the academic backgrounds and the willingness in resisting an attempt of acquisition. Nevertheless, on the one hand, there is a difference between a CEO who has qualifications on practical fields (Economics and Management, Engineering or Natural Sciences) being less receptive to a takeover attempt, and on the other, those who are graduated in more theoretical fields (like Law or any Social Science) or even have no qualifications at all (have a lower sensibility on firm's evaluation techniques), who are more receptive to acquisition attempts.

Regarding the dependet variable nationality, the data show a wide set of nationalities, which lead us to categorize them in nine cultural groups: Anglo American cultural group (Australia, Ireland, New Zealand, United Kingdom, United States of America) whose nationalities have in common language, historical ties and political-economical agreements (in fact, and just as an example, United Kingdom is composed by English, North Irish and Scottish people, and all belong to the Commonwealth of Nations); African cultural group (Senegal, South Africa and Zimbabwe), countries that have economic ties; Arabian cultural

group (Morocco, Syria, Turkey), countries that have religious ties and thus very close cultural similarities; Asian cultural group (China, India, Indonesia, Japan, Malaysia, South Korea, Sri Lanka, Thailand), countries with cultural ties and economic similarities, especially considering that they belong to a growing economic area; Balkan and Slavic (Cyprus, Greece, Hungary, Macedonia, Poland, Romania), Francophone (Belgium, France and Switzerland); (vii) Germanic (Austria, Germany and Netherlands), Latin (Brazil, Italy, México, Portugal, Spain) and (ix) Scandinavian (Denmark, Finland, Norway, Sweden) cultural group, all groups with countries that have cultural ties and historical connections.

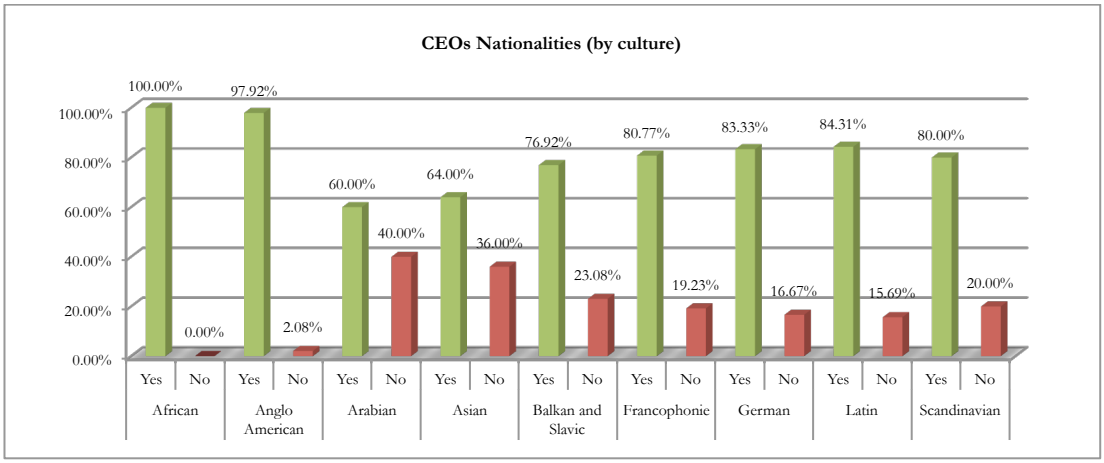
Figure 9. Target Firms' CEOs' Academic Background and the Percentage to Resist a Takeover Attempt ("Scenario 1")



The executives that belong to the Anglo American and African culture groups show a higher willingness to resist takeover attempts. In fact, and this is perhaps the most interesting aspect, two of the three nationalities that belong to the African cultural group were in the past British colonies, meaning, thus, a cultural closeness and an explanation to similar results with the Anglo American culture. The remaining cultures show a very similar behavior booth in terms of resistance and non-resistance to the attempts of takeovers. However, the countries in the Arabian, Asian or Balkan and Slavic cultural groups seem to be less prompt to resist a takeover attempt. If analyzed in a historical perspective, the countries that belong to this cultural group need more foreign investment in order to accomplish economic goals. Additionally, there are also countries that emerged from the later soviet sphere of influence, meaning that they started, a fewer years ago, to open in a more broader way in terms of economic and diplomatic relations with other countries. Nonetheless, the Balkan and Slavic countries have higher resistance to takeover attempts,

but they had a sooner opening to the western world – the majority of them are now part of the European Union. Nonetheless, the observations in each one of the cultural groups that did not allow us to conclude about the existence of a pattern between nationality or culture and target firms's CEOs willingness to resist a takeover attempt. There is no clear evidence that different nationalities or cultures will lead to different percentages/behaviors in the likelihood to resist takeover attempts.

Figure 10. Target Firms' CEOs' Nationalities (Grouped in Cultures) and the Percentage to Resist a Takeover Attempt ("Scenario 1")



Finally, the influence of target firms' CEOs gender in the likelihood to resist a takeover attempt represents a major obstacle that can skew any statistical results. Unfortunately, the CEOs world still is a "men's world". In the 378 eligible CEOs, only ten are female and represent eleven effective or potential M&A transactions.

Scenario 2

This scenario stresses very similar results to the ones present in "Scenario 1", especially those that refer to the nationality and academic background of the target firms' CEOs. Nevertheless, there is a slightly different behavior when analyzing the variables of target firms' CEOs' age and tenure. In this scenario, target firms' CEOs' age and the likelihood to resist a takeover attempt have shown two peaks of age which exhibit a higher resistance, compared to "Scenario 1", where there was slight but almost continuous growth until the interval of age between sixty-one and sixty-five years. Regarding tenure, a more stable behavior is observed, with higher resistance between less than one-year and ten years, decreasing from this point forward.

Table 8. Statistical Values Regarding the Acquisitions of "Scenario 2"

Deals	Number	Value (in thousand euros)				% of acquisition			
		Min	Max	Ave	Med	Min	Max	Ave	Med
2006	11	49.000,00	12.242.993,00	3.113.391,61	954.644,37	5%	100%	76%	91%
2007	20	2.068,00	64.590.599,98	10.137.213,00	3.578.908,38	27%	100%	88%	100%
2008	16	19.784,19	83.875.250,00	10.168.508,75	1.391.062,87	23%	100%	87%	100%
2009	13	21.993,00	35.192.161,92	7.074.868,42	1.154.244,00	34%	100%	93%	100%
2010	19	20.916,19	21.645.909,00	3.379.819,32	1.726.695,18	82%	100%	98%	100%
2011	22	39,99	19.182.177,55	2.675.625,52	889.262,59	26%	100%	85%	100%
2012	22	791,00	13.271.496,85	1.914.068,00	927.562,47	9%	100%	86%	100%
2013	38	791,00	21.045.426,00	2.813.197,92	940.470,67	23%	100%	88%	100%
2014	78	4.500,00	116.616.040,47	13.439.328,71	2.222.998,41	18%	100%	96%	100%
2015	43	834,18	72.237.987,00	7.282.043,60	1.650.548,02	14%	100%	94%	100%
2016	41	175,15	14.134.848,00	2.161.008,69	622.572,00	39%	100%	91%	100%
Total	**323**	**39,99**	**116 616 040,47**	**6 539 912,91**	**1 264 753,00**	**5%**	**100%**	**91%**	**100%**

Table 9. Statistical Values Regarding the Target Firms' CEOs of "Scenario 2"

Deals	Number			Age				Tenure			
	Male	Female	Total	Min	Max	Ave	Med	Min	Max	Ave	Med
2006	11	0	11	41	64	52	49	0	6	3	3
2007	19	1	20	32	66	54	57	0	15	5	4
2008	16	0	16	37	74	56	57	0	17	5	3
2009	13	0	13	37	64	50	50	0	21	6	3
2010	19	0	19	42	76	54	52	0	18	5	3
2011	22	0	22	43	67	54	55	0	15	6	5
2012	21	1	22	41	67	55	55	0	18	6	6
2013	37	1	38	39	69	52	51	0	19	7	5
2014	76	2	78	37	70	53	53	0	37	7	6
2015	41	2	43	28	69	53	54	0	20	5	3
2016	38	3	41	39	78	56	55	0	30	6	4
Total	**313**	**10**	**323**	**28**	**78**	**54**	**53**	**0**	**37**	**6**	**4**

Figure 11. Target Firms' CEOs' Age and the Percentage to Resist a Takeover Attempt ("Scenario 2")

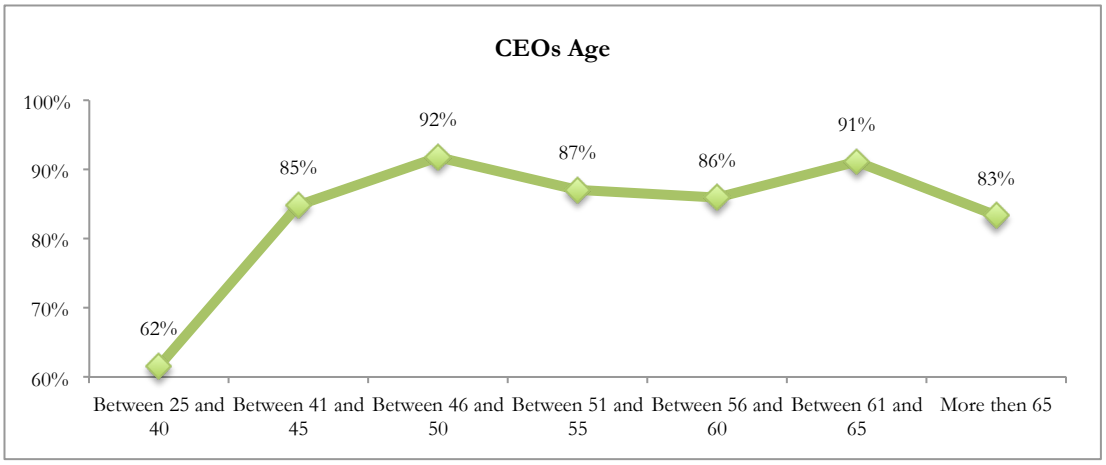


Figure 12. Target Firms' CEOs' Tenure and the Percentage to Resist a Takeover Attempt ("Scenario 2")

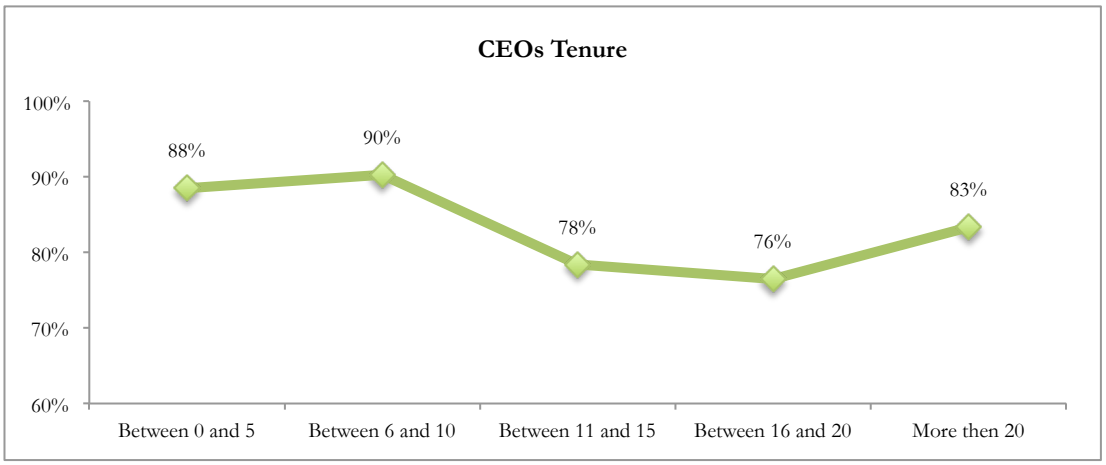


Figure 13. Target firms' CEOs' Academic Background and the Percentage to Resist a Takeover Attempt ("Scenario 2")

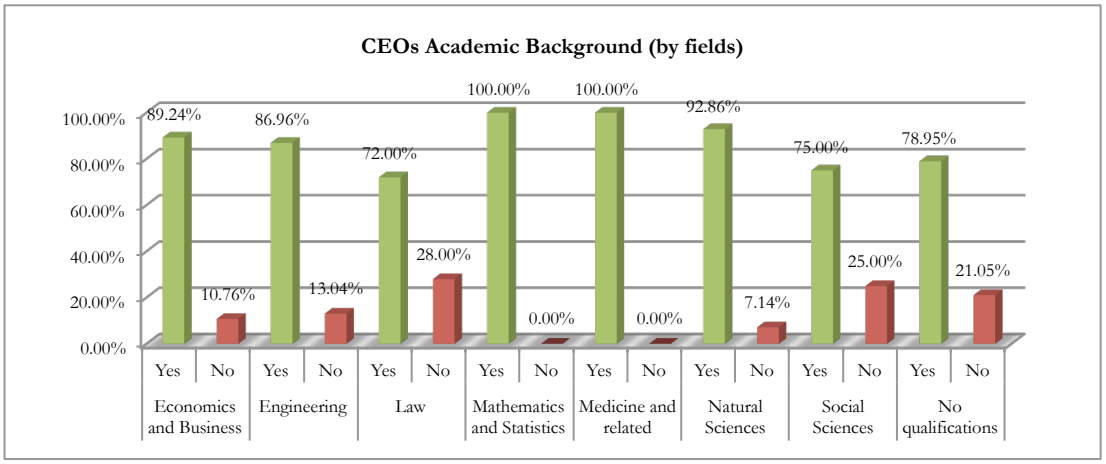
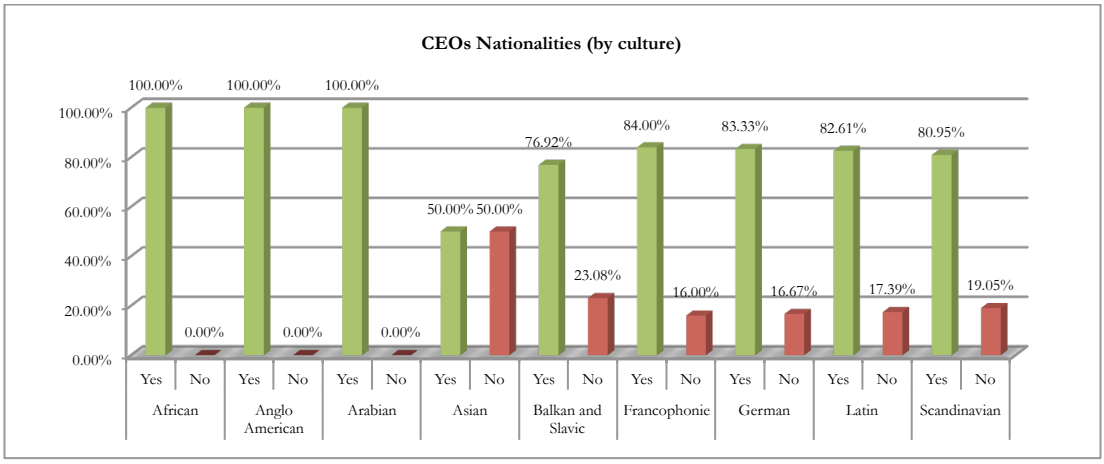


Figure 14. Target Firms' CEOs' Nationalities (Grouped in Cultures) and the Percentage to Resist a Takeover Attempt ("Scenario 2")



Scenario 3

The higher or lower resistance of the target firms' CEOs to any takeover attempt, based on its nationality and academic background, is very similar to the observed results in the other two scenarios. In relation to the variables age and tenure, these ones present more attenuated observations, even in comparison with "Scenario 2" (which presented a different behavior when compared to "Scenario 1").

In fact, "Scenario 2" shows that younger target firms' CEOs have a higher resistance to takeover attempts, with a peak in the ages between forty-six and fifty years, even higher than the percentage between sixty and sixty-five years. On the other hand, "Scenario 3" shows an increasing resistance behavior from the target firms' CEOs until the ages between forty-six and fifty, starting then to decrease continuously from that point forward.

Regarding target firms' CEOs tenure, it is shown lower percentages of CEOs that have resisted a takeover attempt on higher age intervals, and higher percentages on the younger CEOs.

When comparing the quantitative statistical data of this scenario with the others, it is possible to verify that the addition of new criteria from one scenario to another, namely the single analysis of CEOs that run an European target firm, during a period of time that does not include the years of the international financial crisis, allows us to obtain more attenuated results.

In fact, considering the age and the tenure of the target firms' CEOs, it is possible to verify similar results to the ones pointed out in this dissertation. In fact, the inclusion of

additional criteria on "Scenario 1", which lead to the construction of "Scenario 2" and "Scenario 3", have a logical explanation. The great objective is to reach results that are statistically significant and may answer to the initial problem of this dissertation: will some individual characteristics of the target firms' CEOs increase or lower their likelihood to resist a takeover attempt?

In "Scenario 1" we have European companies, both in the acquirer and target side, in order to increase the number of observations. In "Scenario 2" it is only tested observations with European target firms in order to compare to previous studies (that analyzed other markets). Finally, in "Scenario 3" only are present acquisitions with European target firm's during the period between 2012 and 2016 in order to understand if there are skewed results, and which are consequence of the financial crisis years.

Table 10. Statistical Values Regarding the Acquisitions of "Scenario 3"

Deals	Number	Value (in thousand euros)				% of acquisition			
		Min	Max	Ave	Med	Min	Max	Ave	Med
2012	22	791,00	13.271.496,85	1.914.068,00	927.562,47	9%	100%	86%	100%
2013	38	791,00	21.045.426,00	2.813.197,92	940.470,67	23%	100%	88%	100%
2014	79	4.500,00	116.616.040,47	12.966.990,59	2.244.996,81	18%	100%	96%	100%
2015	43	834,18	72.237.987,00	7.282.043,60	1.650.548,02	14%	100%	94%	100%
2016	41	175,15	14.134.848,00	2.161.008,69	622.572,00	39%	100%	91%	100%
Total	**323**	**175,15**	**116.616.040,47**	**6.739.979,86**	**1 257 404,22**	**9%**	**100%**	**92%**	**100%**

Table 11. Statistical Values Regarding the Target Firms' CEOs of "Scenario 3"

Deals	Number			Age				Tenure			
	Male	Female	Total	Min	Max	Ave	Med	Min	Max	Ave	Med
2012	21	1	22	41	67	55	55	0	18	6	5
2013	37	1	38	39	69	52	51	0	19	7	5
2014	77	2	79	37	70	53	53	0	37	7	6
2015	41	2	43	28	69	53	54	0	20	5	3
2016	38	3	41	39	78	56	55	0	30	6	4
Total	**214**	**9**	**223**	**28**	**78**	**53**	**53**	**0**	**37**	**6**	**5**

Figure 15. Target Firms' CEOs' Age and the Percentage to Resist a Takeover Attempt ("Scenario 3")

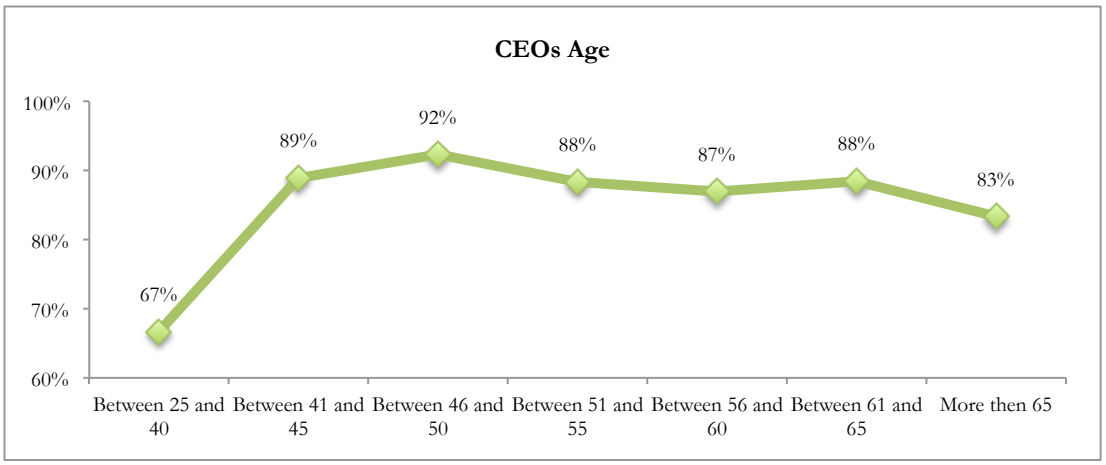


Figure 16. Target Firms' CEOs' Tenure and the Percentage to Resist a Takeover Attempt ("Scenario 3")

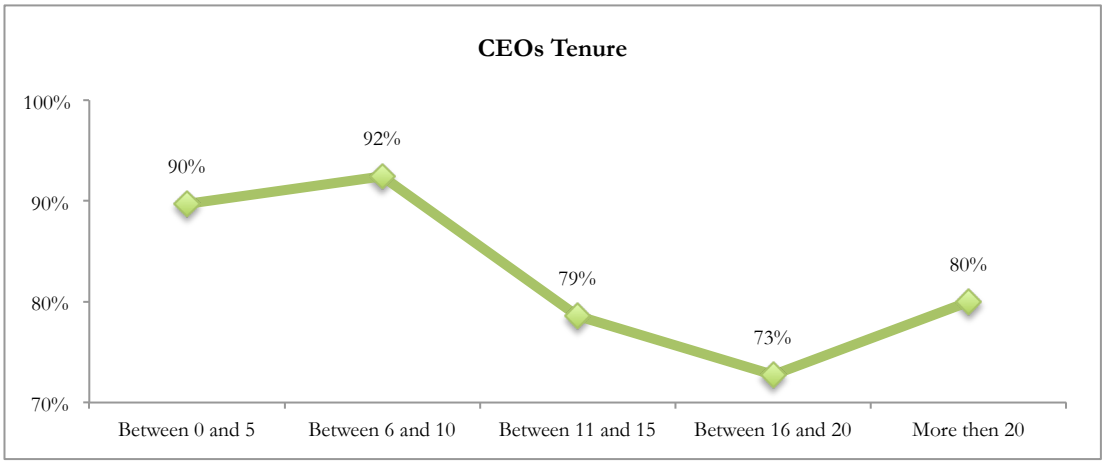


Figure 17. Target Firms' CEOs' Academic Background and the Percentage to Resist a Takeover Attempt ("Scenario 3")

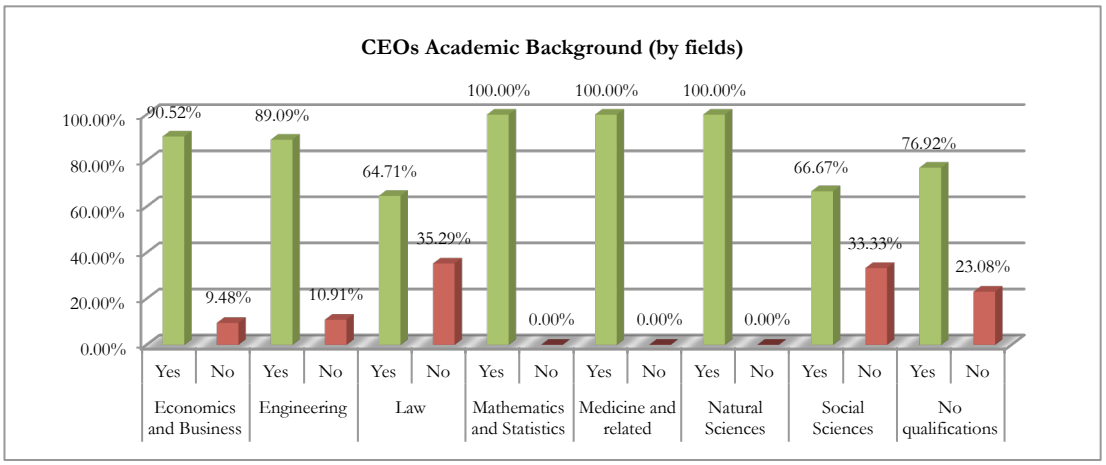
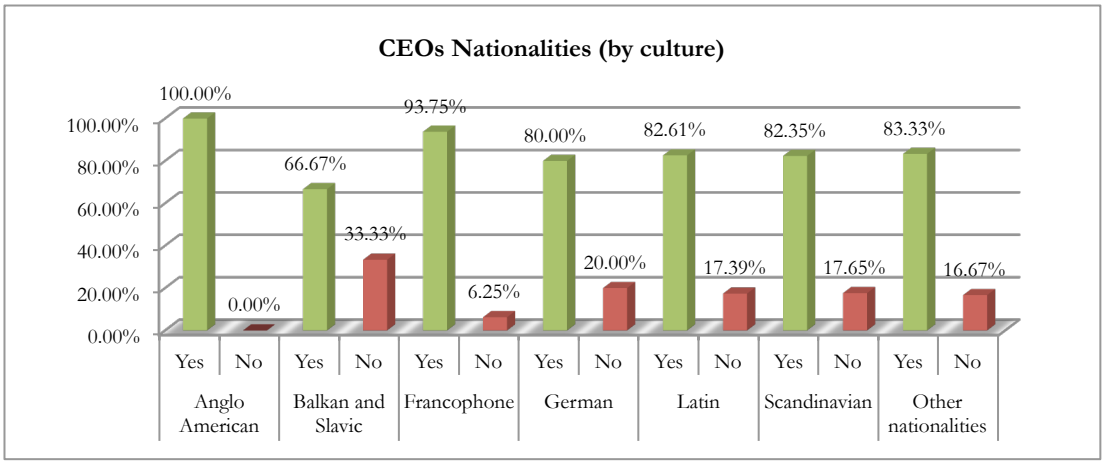


Figure 18. Target Firms' CEOs' Nationalities (Grouped in Cultures) and the Percentage to Resist a Takeover Attempt ("Scenario 3")



4.2. Results of the Binomial Regression Model

In this section it is presented a descriptive statistics for the variables of study in this dissertation (age, tenure, academic background, nationality and gender), and their influence on a higher or lower resistance to the takeover attempts from the target firms' CEOs.

The first step is to analyze "Table 12". It is possible to understand the values referring to Cox and Snell R Square ("Cox & Snell R^2") and Nagelkerke R Square ("Nagelkerke R^2") values, which are both methods to calculate the variation of the dependent variable values, and sometimes are referred as *pseudo* R Square ("R^2") values (and will have lower values than in multiple regression). However, they are interpreted in the same way, but with more caution. Nevertheless, we have to consider that Nagelkerke R^2 is a modification of Cox & Snell R^2, but the latter cannot achieve a value of 1, and, thus, it is preferable to report the Nagelkerke R^2 value. After this analysis, the necessaries observations, regarding the statistical significance of the model for each data scenario, will be calculated.

Table 12. Model Summary and Homer and Lemeshow Test (source: own calculations)

Scenario	Model Summary			Homer and Lemeshow Test		
	-2 log likelihood	Cox & Snell R Square	Nagelkerke R Square	Chi-square	df	Sig.
Scenario 1 (AGE and TENURE as linear variable)	160.230	.346	.605	5.663	8	.685
Scenario 2 (AGE and TENURE as linear variable)	118.326	.334	.621	6.129	8	.633
Scenario 3 (AGE and TENURE as linear variable)	73.583	.324	.629	9.411	8	.309
Scenario 1 (AGE and TENURE categorized in groups)	151.545	.361	.631	4.059	8	.852
Scenario 2 (AGE and TENURE categorized in groups)	111.378	.348	.647	2.213	8	.974
Scenario 3 (AGE and TENURE categorized in groups)	64.177	.352	.684	6.896	7	.440

Table 13. Results of Binomial Regression Analysis with all Variables, and Age and Tenure as Linear Variables (source: own calculations)

Independent variable	Scenario 1			Scenario 2			Scenario 3		
	B	Wald	Sig.	B	Wald	Sig	B	Wald	Sig
AGE	.046	2.687	.101	.051	2.359	.125	.023	.284	.594
TEN	-.047	2.157	.142	-.068	3.149	.076	-.072	2.274	.132
ACB		7.998	.333		4.972	.663		2.052	.957
ACB [1]	.331	.164	.685	.389	.156	.693	1.074	.831	.362
ACB [2]	1.234	1.902	.168	.768	.593	.441	1.461	1.237	.266
ACB [3]	-.184	.029	.865	-.518	.191	.662	.235	.026	.871
ACB [4]	19.472	.000	.999	18.377	.000	.999	18.268	.000	.999
ACB [5]	1.855	1.100	.294	17.868	.000	.999	18.440	.000	.999
ACB [6]	1.873	.911	.340	.832	.144	.704	16.614	.000	.999
ACB [7]	-1.983	1.637	.201	-2.247	1.650	.199	-16.883	.000	.997
NAT		8.635	.374		4.485	.774		3.542	.738
NAT [1]	20.658	.000	.999	-.600	.000	1.000	12.754	.000	.999
NAT [2]	-3.116	3.551	.059	-.197	.000	1.000	-19.129	.000	.999
NAT [3]	-1.708	2.986	.084	-20.494	.000	.996	-16.751	.000	.999
NAT [4]	-3.044	7.200	.007	-19.785	.000	.996	-18.583	.000	.999
NAT [5]	-1.842	3.384	.066	-18.055	.000	.996	-17.590	.000	.999
NAT [6]	-1.688	3.559	.059	-18.553	.000	.996	-18.201	.000	.999
NAT [7]	1.223	1.422	.233	-18.067	.000	.996	-	-	-
NAT [8]	-1.615	2.673	.102	-18.544	.000	.996	-	-	-
GEN [1]	-2.352	3.926	.048	-1.522	1.543	.214	1.152	.665	.415
DEAL_VALUE	.000	.018	.894	.000	.308	.579	.000	.000	.995
STOCK_ACQUIRED	8169.00	53.460	.000	8.024	38.813	.000	7.015	16.524	.000
MARKET_CAP	.000	1.431	.232	.000	1.487	.223	.000	.116	.734
TOTAL_ASSETS	.000	.411	.521	.000	.237	.627	.000	.850	.356
STOCK_PRICE	.005	.501	.479	.003	.187	.665	.027	.849	.357
RATIO Q	.000	.004	.947	.000	.004	.948	.000	.002	.964
Constant	-4.272	3.998	.046	11.293	.000	.998	11.315	.000	.999

Table 14. Results of Binomial Regression Analysis with all Variables, and Age and Tenure as Five-Year Period Groups (source: own calculations)

Independent variable	Scenario 1			Scenario 2			Scenario 3		
	B	Wald	Sig.	B	Wald	Sig	B	Wald	Sig
AGE		6.680	.351		5.923	.432		5.025	.541
AGE [1]	2.538	4.834	.028	2.180	2.961	.085	3.913	2.537	.111
AGE [2]	1.654	2.770	.096	1.797	2.465	.116	3.293	3.139	.076
AGE [3]	1.574	2.622	.105	1.087	.953	.329	2.248	1.532	.216
AGE [4]	2.044	3.749	.053	2.131	3.098	.078	3.908	3.195	.074
AGE [5]	2.666	4.887	.027	2.989	4.428	.039	5.959	2.618	.106
AGE [6]	2.087	2.852	.091	2.058	1.816	.178	3.059	1.975	.160
TEN		5.916	.206		5.937	.204		6.448	.168
TEN [1]	-.140	.040	.842	.221	.094	.759	-1.044	.643	.423
TEN [2]	-1.122	2.736	.098	-1.410	3.489	.062	-2.095	4.066	.044
TEN [3]	1.103	1.124	.289	.270	.053	.818	2.643	1.060	.303
TEN [4]	-1.673	2.551	.110	-2.371	2.581	.108	-4.250	3.565	.059
ACB		12.081	.098		7.395	.389		2.184	.949
ACB [1]	.312	.135	.713	-.151	.018	.894	.716	.291	.590
ACB [2]	1.432	2.373	.123	.877	.624	.430	1.515	1.053	.305
ACB [3]	.173	.023	.878	-.464	.124	.725	-.217	.018	.893
ACB [4]	19.039	.000	.999	17.183	.000	.999	16.090	.000	.999
ACB [5]	2.265	1.044	.307	17.648	.000	.999	18.346	.000	.999
ACB [6]	2.302	1.382	.240	.961	.203	.652	14.189	.000	.999
ACB [7]	-3.150	3.890	.049	-3.649	3.016	.082	-23.594	.000	.995
NAT		8.389	.396		5.049	.752		4.510	.608
NAT [1]	21.725	.000	.999	-1.502	.000	1.000	19.546	.000	.999
NAT [2]	-3.552	3.060	.080	-2.005	.000	1.000	-18.696	.000	.999
NAT [3]	-1.897	3.379	.066	-22.260	.000	.995	-15.748	.000	.999
NAT [4]	-3.259	7.011	.008	-21.326	.000	.995	-18.327	.000	.999
NAT [5]	-1.914	3.321	.068	-19.040	.000	995	-17.534	.000	.999
NAT [6]	-2.071	5.030	.025	-19.945	.000	.995	-17.710	.000	.999
NAT [7]	-1.795	2.745	.098	-18.742	.000	.995	-	-	-
NAT [8]	-1.902	3.502	.061	-19.822	.000	.995	-	-	-
GEN [1]	-2.164	2.535	.111	-1.733	1.736	.188	1.817	1.029	.310
DEAL_VALUE	.000	.094	.760	.000	.862	.353	.000	.001	.969
STOCK_ACQUIRED	8.703	52.185	.000	8.740	35.507	.000	8.677	14.398	.000
MARKET_CAP	.000	2.225	.136	.000	2.032	.154	.000	.089	.766
TOTAL_ASSETS	.000	.449	.503	.000	.263	.608	.000	.095	.758
STOCK_PRICE	.005	.399	.528	.001	.017	.896	.033	.955	.328
RATIO Q	.000	.007	.934	.000	.005	.946	.000	.001	.971
Constant	-4.280	4.357	.037	13.709	.000	.997	8.014	.000	1.000

Scenario 1

The model explained 60.5%, when age and tenure are used as linear variables, and 63,1% when age and tenure are categorized into groups, of the variance in takeover attempts resistance from the target firms' CEOs, and correctly classified 92.3% and 92,9% of cases, respectively. Gender (p=.048) and the nationality group "Balkan and Slavic" (p=.007) add statistical significance to the model, when age is used as a linear variable. For example, the odd of resistance to a takeover attempt is .095 times greater for males CEOs when opposed to females CEOs.

When age and tenure are categorized into groups, the periods of age between forty-one and forty-five (p=.028), and the period of age between sixty-one and sixty-five (p=.027) add statistical significance to the model, with the odds of resistance to a takeover attempt being, respectively, 12.654 times and 14.377 times greater when opposed to younger CEOs. In addition, the national/cultural groups "German" (p=.029) and "Balkan and Slavic" (p=.011) add statistical significance, with the odds of resistance to a takeover attempt being, respectively, .038 times and .126 times greater when opposed to Anglo American CEOs. Finally, the CEOs with academic background in "Social Sciences" brings statistical significance to the model, with the odds of resistance to a takeover attempt being .043 times greater when opposed to CEOs with none high education qualifications.

Scenario 2

The model explained 62,1%, when age and tenure are used as linear variables, and 64,7%, when age and tenure are categorized into groups, of the variance in takeover attempts resistance from the target firms' CEOs, and correctly classified 93,5% of cases. When age and tenure are categorized into groups, the period of age between sixty-one and sixty-five (p=.039) add statistical significance to the model, with the odds of resistance to a takeover attempt being 19.808 times greater when opposed to younger CEOs.

Scenario 3

The model explained 62.9%, when age and tenure are used as linear variables, and 68,4%, when age and tenure are categorized into groups, of the variance in takeover attempts resistance from the target firms' CEOs, and correctly classified 94,6% and 94,1% of cases, respectively. The only dependent variable that brings statistical significance to the model is the one referring to the years in that position between eleven and fifteen (p=.044), with the

odds of resistance to a takeover attempt being .123 times greater when opposed to CEOs with less than five years in office.

4.3. Discussion of the Results

Buchholtz and Ribbens (1994) and Jenter and Lewellen (2015) concluded about the influence the age of the target firm's CEOs has in a higher or lower willingness to resist a takeover attempt. Moreover, as it was already stated, the first authors were able, on the one hand, to reach a curvilinear behavior between the age of a CEO and his/her likelihood to resist a takeover attempt, with the maximum being reached at the age of around fifty-six. However, the authors could not found, on the other, any evidence that the length of a CEO's tenure in a position affects takeover resistance.

Yim (2013) concluded that the age of the CEO becomes an important determinant of a firm acquisition activity over the years he/she is on that position, thus meaning that CEO's tenure plays an important role in the decision-making process when regarding M&A activity. Kilian and Schindler (2014) show that age has a significant and strong positive influence on short-term abnormal stock returns around acquisitions' announcement.

This research concluded that for each one of the scenarios studied there is a curvilinear behavior between the age of a target firm's CEO and his/her willingness to resist a takeover attempt, reaching its maximum between the ages of fifty-three and fifty-eight. These conclusions are, in fact, very similar to previous ones. However, despite this curvilinear behavior, it is not possible to accept or refute Hypothesis 1, considering the lack of statistical significance in all the scenarios when age is a linear variable (the best scenario, "Scenario 1", shows a p=.101). Nevertheless, regarding the results when age is categorized into groups, we also cannot reject Hypothesis 1 in "Scenario 2" and "Scenario 3". Yet, in "Scenario 1" there is statistical significance that validates Hypothesis 1 when the age is in the intervals between forty-one and fifty-five or sixty-one and sixty-five (p=.028 and p=.027 respectively).

Regarding the tenure of the target firm's CEOs, we found a declining pattern, which is distinguished from the curvilinear effect that age shows in every scenario. In fact, as many years a CEO stays in this position, his/her willingness to resist a takeover attempt declines. Nonetheless, it is not possible to state that tenure plays an important role on a higher or lower resistance to a takeover attempt, meaning that we cannot support or reject Hypothesis 2, do to the lack of statistical significance in all the scenarios (the best scenario

is "Scenario 2" with p=.076). However, and showing the same behavior as the variable age, when categorizing tenure in groups, "Scenario 3" allows to validate Hypothesis 2 considering that tenure between eleven and fifteen years has statistical significance (p=.044). This shows a different conclusion to the ones of previous studies, due to the fact that CEOs with tenure between eleven and fifteen years are less willing to resist a takeover attempt in comparison to CEOs with lower tenures. In fact, Buchholtz and Ribbens (1994) did not reach to a visible conclusion, stating that, according to the data they have used, there was "...no evidence that the length of a CEO's tenure in a position affects takeover resistance" (567). Our conclusions here are consistent with those achieved in previous studies. CEOs with higher tenures have a different behavior, which is opposite to a more quite and assertive one: CEOs with higher tenures are more willing to pursue an higher acquisition activity (Malmendier & Tate, 2008; Yim, 2013) and likely to suffer from overconfidence, building up an illusion of control (Malmendier & Tate, 2008; Shefrin, 2005).

Nationality and academic background are not, in fact, studied before in any previous study. Thus, we cannot assert any comparison with other works. Both variables did not, in "Scenario 2" and "Scenario 3", show statistic significance, meaning that we cannot validate or reject Hypotheses 3 and 4. Nevertheless, the results, which consider "Balkan and Slavic" national/cultural group in "Scenario 1", when age and tenure are used as linear variables, are better, showing statistical significance, allowing the validation, in this particular case, of Hypothesis 4.

Regarding now the hypothesis that the gender of the CEOs can affect their desirability to resist a takeover attempt of any acquirer firm, there is statistical significance in "Scenario 1", when age and tenure are used as linear variables, meaning that we can accept, in this case, Hypothesis 5.

5. Conclusions

The aim of this research study was to find evidence that a target firm's CEO profile can influence the success of a takeover attempt. In other words, our objective here has been to problematize around the question of whether different individual characteristics (age, tenure, academic background, nationality and gender) of a target firm's CEO imply that he/she has a greater of lesser resistance to a takeover attempt. To reach the evidences we have looked for, it was used data with the following criteria: acquisitions limited to a period of years between 2006 and 2016; both the acquirer and the target firm are listed; and the target and acquirer firm's are from a specific geographical area (European countries). From this initial search, three data scenarios were constructed.

Regarding this data division into three scenarios, the explanation about why this was done is quite simple. The initial problem that regarded the topic of study in this dissertation was due to the lack of information available. Indeed, and contrary to previous studies, to find the needed information about European firms was not as simple and as feasible as the one referring to North-American companies. In consequence, only acquisitions with listed target firms were selected, considering that the search for information of unlisted target firms' CEOs would be quite problematic. The initial criteria search, allowed the achievement of the scenario that was called "Scenario 1", with 378 observations. The data size of this first scenario allowed us, when it is submitted to statistical analysis on our regression model, to reach significant conclusions.

Nonetheless, our major objective was to analyze target firms from European countries, which lead to "Scenario 2", with 323 observations. Moreover, in this scenario we had observations whose target firm's are from European countries that were not part of the initial selection (see table 4 in Section 3.1.), but they brought valid information to the research here. Additionally, returning to the first two assumptions assumed in "Section 3.1.", we looked for acquisitions in a period of time with no relevant economic problems, leading, thus, to "Scenario 3". This division allowed the comparison, with statistical significance, of the correlation between target firm's CEO profile and his/her resistance to a takeover attempt among different realities. Indeed, this allowed us both to achieve close answers to our questions, which informed this dissertation, and ultimately contrast them with conclusions of previous studies about the similar preoccupations.

In fact, when analyzing the results obtained after submitting the data to the binomial regression model, we conclude that we reached peculiar and important conclusions, and we were able to validate some of the hypotheses stipulated here. We mean, according to the different chosen scenario, that the target firms' CEOs age, tenure, academic background, nationality and gender may play an important role on their greater or lesser resistance to a takeover attempt.

Although it has been impossible to fully accept or reject all the hypotheses formulated in all scenarios, this does not mean that there is o relationship between psychological aspects and the greater or lesser resistance from the part of the target firms' CEOs to a takeover attempt. In fact, it can be stated, with high certainty, that this dissertation represents a great contribution to the topic of study. This is due to five reasons, which can be also seen as a support for future research:

1) To test and use a wide number of variables. In fact, and just by analyzing our data, there are acquisitions in which the target firm's CEO belongs to the family controlling the firm. Many of the previous studies found evidence that those CEOs who own stock from the firm they manage may play an important role in the success of a takeover attempt. If a CEO belongs to the family who controls the target firm and, simultaneously, his/her family funded that specific firm, it is highly plausible that this aspect could represent an even greater influence on the higher or lower likelihood of target firms' CEOs to resist takeover attempts. The psychological attachment between a CEOs and the family firm they control is, logically, special and intense, thus leading us to believe that in different periods of time (i.e., with different age and tenure) the answer can be different, and can even present a different behavior if compared to target firms' CEOs that do not belong or are not managing a family controlled company;
2) To study and analyze a larger and more complete data. In fact, it should be interesting if there was the possibility to study data whose observations include unlisted companies, meaning this the entrance of smaller firms. However, this means a more intense research considering the lack of information regarding these smaller firms, which can be controlled by a family;
3) To enhance the problematization of CEOs gender influence on M&A. In fact, we reached statistical significance, which allowed us to validate the hypothesis that gender has influence on a higher or lower resistance of the target firm's CEO to a takeover attempt. In one of the scenarios, we found evidence that male CEOs are 0.095 times

more likely to resist a takeover attempt than female CEOs. Nevertheless, there was no statistical significance to validate that European CEOs gender has influence on the lower or higher resistance to takeover attempts, on the data of the other two scenarios studied in this dissertation. There are still few female CEOs to consider the results as definitive. However, time changes, and everyday European governments and European firms governance enhance the willingness to offer opportunities to women to assume higher positions in any company, where we include the CEO position. It would be interesting to analyze in a further research this aspect;

4) To nullify the economic consequences, which resulted from the financial crisis. In fact, "Scenario 3" only incorporated the years between 2012 and 2016, after the higher years of the subprime crisis in North America. Nonetheless, the debt crisis in Europe started in 2011, and the following years suffered the consequences. It was only in the year of 2018 that, countries like Greece, ended their economic assistance programs. This means that there are still major problems in the European economies and in European firms. Thus, we conclude that the CEOs, both from the target and the acquirer firms, behaved in a different way, when compared with a stable period of time;
5) To study other subjects instead of the CEO. If possible, and being at disposable the necessary information, we believe that it could be interesting to use as a subject of study not the CEO but instead the Chief Financial Officer ("CFO") of the target firms that face a takeover attempt. This is due to the fact that, in recent years, the role of the CFO has expanded significantly from traditionally being viewed as a financial gatekeeper to a strategic partner and advisor of the CEO. In fact, a report released by McKinsey (Chappuis et al., 2008), where 88% of 164 CFOs surveyed, reported that CEOs expect the CFOs to be more active participants in shaping the strategy of their organizations.

Notwithstanding the stated conclusions, this work represents an increment on the knowledge regarding the topic of the present study, as well as it suggests further researches. In fact, which is more relevant are not the conclusions themselves, but the suggestions they bring to encourage possible ways to pursue a future research.

6. Bibliography

Aktas, N., De Bodt, E., Bollaert, H., & Roll, R. (2012). *CEO narcissism and the takeover process: From private initiation to deal completion.* Paper presented at the AFA 2012 Chicago Meetings Paper.

Aktas, N., de Bodt, E., & Roll, R. (2007). *Corporate serial acquisitions: An empirical test of the learning hypothesis.* Center for Operations Research and Econometrics (CORE), CORE Discussion Papers. Université Catholique de Louvain. Retrieved from http://dx.doi.org/10.2139/ssrn.885507

Alexandridis, G., Antypas, N., & Travlos, N. G. (2017). Value Creation from M&As: New Evidence. *Journal of Corporate Finance, 45*, 632-650.

Amihud, Y., & Lev, B. (1981). Risk Reduction as a Managerial Motive for Conglomerate Mergers. *The Bell Journal of Economics, 12*(2), 605-617. doi:10.2307/3003575

Arendt, L. A., Priem, R. L., & Ndofor, H. A. (2005). A CEO-Adviser Model of Strategic Decision Making. *Journal of Management, 31*(5), 680-699. doi:https://doi.org/10.1177/0149206305279054

Baker, H. K., & Nofsinger, J. R. (2010). *Behavioral finance: investors, corporations, and markets* (1 ed.). Canada: John Wiley & Sons.

Barberis, N., & Thaler, R. (2003). Chapter 18 - A survey of behavioral finance *Handbook of the Economics of Finance* (Vol. Volume 1, pp. 1053-1128): Elsevier.

Bertrand, M., & Mullainathan, S. (2003). Enjoying the Quiet Life? Corporate Governance and Managerial Preferences. *Journal of Political Economy, 111*(5), 1043-1075. doi:10.1086/376950

Bertrand, M., & Schoar, A. (2003). Managing with style: The effect of managers on firm policies. *The Quarterly Journal of Economics, 118*(4), 1169-1208.

Bösecke, K. (2009). Value creation in mergers and acquisitions – theoretical paradigms and past research *Value Creation in Mergers, Acquisitions, and Alliances* (pp. 25-40): Gabler.

Buchholtz, A. K., & Ribbens, B. A. (1994). Role of Executive Chieff Officers in Takeover Resistance: Effects of CEO Incentives and Individual Characteristics. *The Academy of Management Journal, 37*(3), 554-579.

Cannella, A. A., & Lubatkin, M. (1993). Succession as a Sociopolitical Process: Internal Impediments to Outsider Selection. *The Academy of Management Journal, 36*(4), 763-793. doi:10.2307/256758

Chappuis, B. E., Kim, A., & Roche, P. J. (2008). Starting up as CFO. *McKinsey on Finance, Spring 2008,* 12-17.

Child, J. (1974). Managerial and Organizational factors associated with company performance - Part I *Journal of Management Studies, 11*(3), 175-189. doi:10.1111/j.1467-6486.1974.tb00693.x

Coffee, J. C. (1986). Shareholders versus Managers: The Strain in the Corporate Web. *Michigan Law Review, 85*(1), 1-109. doi:10.2307/1288884

Cristerna, H., Ventresca, C., Simon, K., Aiyengar, A., Albersmeier, D., Benito, I., . . . Lomer, D. (2017). *2017 M&A Global Outlook: Finding opportunities in a dynamic market.* Retrieved from https://www.jpmorgan.com/jpmpdf/1320723701797.pdf

Croci, E., Gonenc, H., & Ozkan, N. (2012). CEO compensation, family control, and institutional investors in Continental Europe. *Journal of Banking & Finance, 36*(12), 3318-3335.

DePamphilis, D. (2009). *Mergers, Acquisitions, and Other Restructuring Activities: An Integrated Approach to Process, Tools, Cases, and Solutions*: Elsevier Science.

Doukas, J. A., & Petmezas, D. (2007). Acquisitions, Overconfident Managers and Self-attribution Bias. *European Financial Management, 13*(3), 531-577. doi:10.1111/j.1468-036X.2007.00371.x

Easterbrook, F. H., & Fischel, D. R. (1981). The Proper Role of a Target's Management in Responding to a Tender Offer. *Harvard Law Review, 94*(6), 1161-1204. doi:10.2307/1340753

Eisenhardt, K. M. (1989). Agency Theory: An Assessment and Review. *The Academy of Management Review, 14*(1), 57-74. doi:10.2307/258191

Fama, E. F. (1980). Agency Problems and the Theory of the Firm. *Journal of Political Economy, 88*(2), 288-307.

Ferris, S., Jayaraman, N., & Sabherwal, S. (2013). CEO Overconfidence and International Merger and Acquisition Activity. *Journal of Financial and Quantitative Analysis, 48*(1), 137-164. doi:10.1017/S002210901300006

Finkelstein, S. (1992). Power in Top Management Teams: Dimensions, Measurement, and Validation. *The Academy of Management Journal, 35*(3), 505-538.

Finkelstein, S., & Hambrick, D. C. (1990). Top-Management-Team Tenure and Organizational Outcomes: The Moderating Role of Managerial Discretion. *Administrative Science Quarterly, 35*(3), 484-503. doi:10.2307/2393314

Franks, J., & Mayer, C. (1996). Hostile takeovers and the correction of managerial failure. *Journal of Financial Economics, 40*(1), 163-181.

Frick, W. (2014, 12-03-2014). Research: CEOs Matter More Today Than Ever, at Least in America. *Harvard Business Review, Strategy & Execution*.

Fung, S., Jo, H., & Tsai, S. C. (2009). Agency problems in stock market - driven acquisitions. *Review of Accounting and Finance, 8*(4), 388-430. doi:https://doi.org/10.1108/14757700911006958

Goel, A. M., & Thakor, A. V. (2010). Do envious CEOs cause merger waves? *The Review of Financial Studies, 23*(2), 487-517.

Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate Governance and Equity Prices. *The Quarterly Journal of Economics, 118*(1), 107-157. doi:10.1162/00335530360535162

Gong, N., & Guo, L. (2014). *CEO Power and Mergers and Acquisitions*. Paper presented at the Asian Finance Association (AsianFA) 2014, Faculty of Economics and Business, Universitas Sebelas Maret (FEB UNS) Central Java, Indonesia. https://ssrn.com/abstract=2404952

Graham, J. R., Harvey, C. R., & Puri, M. (2013). Managerial attitudes and corporate actions. *Journal of Financial Economics, 109*(1), 103-121.

Greene, W. (2012). *Econometric Analysis* (7th ed.). New York: Prentice Hall.

Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons: The Organization as a Reflection of Its Top Managers. *Academy of Management Review, 9*(2), 193-206. doi:10.5465/amr.1984.4277628

Heaton, J. B. (1997). Managerial Optimism and Corporate Finance. *Financial Management, 31*(2), 33-45.

Herman, J. L., & Smith, B. (2015). Upper Echelons Theory *Wiley Encyclopedia of Management* (Vol. 6): John Wiley & Sons, Ltd.

Hietala, P., Kaplan, S. N., & Robinson, D. T. (2003). What is the Price of Hubris? Using Takeover Battles to Infer Overpayments and Synergies. *Financial Management, 32*(3), 5-31.

Hill, C. W. L., & Phan, P. (1991). CEO Tenure as a Determinant of CEO Pay. *The Academy of Management Journal, 34*(3), 707-717.
Hitt, M. A., & Tyler, B. B. (1991). Strategic decision models: Integrating different perspectives. *Strategic Management Journal, 12*(5), 327-351. doi:10.1002/smj.4250120502
Isen, A., & Means, B. (1983). The Influence of Positive Affect on Decision-Making Strategy. *Social cognition, 2*(1), 18-31. doi:https://doi.org/10.1521/soco.1983.2.1.18
Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American economic review, 76*(2), 323-329.
Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*(4), 305-360.
Jensen, M. C., & Ruback, R. S. (1983). The Market For Corporate Control: The Scientific Evidence. *Journal of Financial Economics, 11*(1-4), 5-50. doi:https://doi.org/10.1016/0304-405X(83)90004-1
Jenter, D., & Lewellen, K. (2015). CEO Preferences and Acquisitions. *The Journal of Finance, 70*(6), 2813-2852. doi:10.1111/jofi.12283
Kaplan, S. N., Klebanov, M. M., & Sorensen, M. (2012). Which CEO Characteristics and Abilities Matter? *The Journal of Finance, 67*(3), 973-1007. doi:10.1111/j.1540-6261.2012.01739.x
Katzenbach, J., & Aguirre, D. (2013). Culture and the Chief Executive. *strategy+business*.
Kilian, S., & Schindler, A. (2014). *Influence of CEO characteristics on short-term M&A performance - An event study on a sample of FTSE 100 companies.* (Master in Corporate and Financial Management), Lund University - School of Economics and Management.
Klasa, S., & Stegemoller, M. (2007). Takeover Activity as a Response to Time-Varying Changes in Investment Opportunity Sets: Evidence from Takeover Sequences. *Financial Management, 36*(2), 19-43.
Kolasinski, A. C., & Li, X. (2013). Do Strong Boards and Trading in Their Own Firm's Stock Help CEOs Make Better Decisions? Evidence from Corporate Acquisitions by Overconfident CEOs. *Journal of Financial and Quantitative Analysis, 48*(4), 1173-1206.
Kotter, J. P., & Heskett, J. L. (1992). *Corporate Culture and Performance* (1 ed.). New York: Free Press.
Lambert, R. A., & Larcker, D. F. (1985). Golden Parachutes, Executive Decision-Making, and Shareholder Wealth. *Journal of Accounting and Economics, 7*(1–3), 179-203. doi:http://dx.doi.org/10.1016/0165-4101(85)90036-9
Lehn, K., & Zhao, M. (2006). CEO Turnover after Acquisitions: Are Bad Bidders Fired? *The Journal of Finance, 61*(4), 1759-1811. doi:10.1111/j.1540-6261.2006.00889.x
Levi, M., Li, K., & Zhang, F. (2010). Deal or No Deal: Hormones and the M&A Game. *Management Science, 56*(9), 1462–1483. doi:10.1287/mnsc.1100.1206
Lewin, A. Y., & Stephens, C. U. (1994). CEO Attitudes as Determinants of Organization Design: An Integrated Model. *Procedia - Social and Behavioral Sciences, 15*(2), 183-212. doi:https://doi.org/10.1177/017084069401500202
Long, M. S., & Walkling, R. A. (1984). Agency theory, managerial welfare, and takeover bid resistance. *The RAND Journal of Economics, 15*(1), 54-68.
Lucey, B. M., Plaksina, Y., & Dowling, M. (2013). CEO social status and acquisitiveness *Qualitative Research in Financial Markets, 5*(2), 161-177. doi:https://doi.org/10.1108/QRFM-11-2011-0029
Malmendier, U., & Tate, G. (2005). CEO Overconfidence and Corporate Investment. *Journal of Finance, 60*(6), 2661-2700.

Malmendier, U., & Tate, G. (2008). Who makes acquisitions? CEO overconfidence and the market's reaction. *Journal of Financial Economics, 89*(1), 20-43. doi:https://doi.org/10.1016/j.jfineco.2007.07.002

Masulis, R. W., Wang, C., & Xie, F. (2007). Corporate Governance and Acquirer Returns. *The Journal of Finance, 62*(4), 1851-1889. doi:10.1111/j.1540-6261.2007.01259.x

Meyer, E. (2015). Getting to Si, Ja, Oui, Hai, and Da. *Harvard Business Review, December 2015,* 74-80.

Morck, R., Shleifer, A., & Vishny, R. W. (1988). Alternative Mechanisms for Corporate Control. *American Economic Review, 79*(4), 842-852.

Norusis, M. J. (1990). *SPSS-X advanced statistics guide*: SPSS Incorporated.

Papadakis, V., & Barwise, P. (2002). How Much do CEOs and Top Managers Matter in Strategic Decision-Making? *British Journal of Management, 13*(1), 83-95. doi:10.1111/1467-8551.00224

Papadakis, V., Lioukas, S., & Chambers, D. (1998). Strategic decision-making processes: the role of management and context. *Strategic Management Journal, 19*(2), 115-147. doi:10.1002/(SICI)1097-0266(199802)19:2<115::AID-SMJ941>3.0.CO;2-5

Peterson, R. S., Smith, D. B., Martorana, P. V., & Owens, P. D. (2003). The impact of chief executive officer personality on top management team dynamics: one mechanism by which leadership affects organizational performance. *Journal of Applied Psychology, 88*(5), 795-808. doi:10.1037/0021-9010.88.5.795

Quigley, T. J., & Hambrick, D. C. (2015). Has the "CEO effect" increased in recent decades? A new explanation for the great rise in America's attention to corporate leaders. *Strategic Management Journal, 36*(6), 821-830. doi:10.1002/smj.2258

Rajagopalan, N., Rasheed, A. M. A., & Datta, D. K. (1993). Strategic Decision Processes: Critical Review and Future Directions. *Journal of Management, 19*(2), 349-384.

Ritter, J. (2003). Behavioral finance. *Pacific-Basin Finance Journal, 11*(4), 429-437.

Roll, R. (1986). The hubris hypothesis of corporate takeovers. *The Journal of Business, 59*(2), 197-216.

Schwert, G. W. (2000). Hostility in Takeovers: In the Eyes of the Beholder? *The Journal of Finance, 55*(6), 2599-2640. doi:10.1111/0022-1082.00301

Serfling, M. A. (2014). CEO age and the riskiness of corporate policies. *Journal of Corporate Finance, 25*(Supplement C), 251-273. doi:https://doi.org/10.1016/j.jcorpfin.2013.12.013

Shefrin, H. (2005). *Behavioral Corporate Finance* (1 ed.): McGraw-Hill Education.

Shefrin, H. (2010). Behavioralizing finance. *Foundations and Trends® in Finance, 4*(1–2), 1-184.

Shleifer, A., & Vishny, R. W. (1989). Management entrenchment: The case of manager-specific investments. *Journal of Financial Economics, 25*(1), 123-139.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance, 52*(2), 737-783. doi:10.1111/j.1540-6261.1997.tb04820.x

Stevens, J. M., Beyer, J. M., & Trice, H. M. (1978). Assessing Personal, Role, and Organizational Predictors of Managerial Commitment. *The Academy of Management Journal, 21*(3), 380-396.

Tosi, H. L., & Greckhamer, T. (2004). Culture and CEO Compensation. *Organization Science, 15*(6), 657–670. doi:doi:10.1287/orsc.1040.0099

Tricker, B. (2012). *Corporate Governance: Principles, Policies and Practices* (2nd ed.): Oxford University Press.

Turk, T. A. (1992). Takeover Resistance, Information Leakage, and Target Firm Value. *Journal of Management, 18*(3), 503-522.

Veiga, J. F. (1983). Mobility Influences during Managerial Career Stages. *The Academy of Management Journal, 26*(1), 64-85.

Wade, J., O'Reilly, C. A., & Chandratat, I. (1990). Golden Parachutes: CEOs and the Exercise of Social Influence. *Administrative Science Quarterly, 35*(4), 587-603. doi:10.2307/2393510

Wiersema, M. F., & Bantel, K. A. (1992). Top Management Team Demography and Corporate Strategic Change. *The Academy of Management Journal, 35*(1), 91-121.

Yim, S. (2013). The acquisitiveness of youth: CEO age and acquisition behavior. *Journal of Financial Economics, 108*(1), 250-273.

Zuckerman, H. S. (1989). Redefining the Role of the CEO: Challenges and Conflicts. *Journal of Healthcare Management, 34*(1), 25-38.

Annexes

Annex 1

The following table presents the entire data (belonging to Scenario 1, and from which the other two scenarios are based upon) used to test the hypotheses stated and that allowed an analysis of the results reached.

N.º	ACQUIRER COMPANY	TARGET COMPANY	TARGET FIRM INFORMATION				TRANSACTION INFORMATION				CHIEF EXECUTIVE OFFICER				
			COUNTRY	1	2	3	4	5	6	7	8	9	10	11	12	13
1	ROCHE HOLDING AG	GLAXOSMITHKLINE PLC	United Kingdom	73 870 950,14	63 519 754,39	19,92	2014	116 616 040,47	100%	Yes	Andrew Witty	1964	2008	United Kingdom	Economics and Business	Male
2	EXXON MOBIL CORPORATION	BP PLC	United Kingdom	116 692 051,23	230 563 737,30	5,91	2014	113 605 563,61	100%	Yes	Robert Warren Dudley	1955	2010	United States of America	Engineering	Male
3	AT&T CORPORATION	VODAFONE GROUP PLC	United Kingdom	64 526 759,94	180 170 343,07	5,05	2014	96 702 169,40	100%	Yes	Vittorio Amedeo Colao	1961	2004	Italy	Economics and Business	Male
4	CHINA MINMETALS CORPORATION	ANGLO AMERICAN PLC	United Kingdom	24 520 223,83	45 494 053,02	18,34	2014	28 376 879,89	100%	Yes	Mark Cutifani	1958	2007	Australia	Engineering	Male
5	CREDITT SUISSE GROUP AG	JULIUS BAER GRUPPE AG	Switzerland	11 561 467,05	68 391 387,23	33,16	2014	9 739 628,10	100%	Yes	Boris F.J.Collardi	1974	2009	Switzerland	Economics and Business	Male
6	FIAT SPA	PEUGEOT SA	France	15 341 362,28	21 289 000,00	10,09	2014	7 227 908,00	100%	Yes	Philippe Varin	1952	2008	France	Engineering	Male

[1] Market capitalization (in thousand euros);
[2] Total assets (in thousand euros);
[3] Stock price 3 months prior to rumor (in euros);
[4] Year in each the transaction or presumable transaction was attempted;
[5] Value of the effective or presumable deal (in million euros);
[6] Percentage (%) pretended to be acquired or that was acquired if the deal was accepted (not resisted);
[7] CEO of the target firm resisted ("Yes") or did not resisted ("No") to the takeover attempt;
[8] Name of the target firm CEO;
[9] Year of birth of the target firm CEO;
[10] Year in each the target firm CEO was appointed to office;
[11] Nationality of the target firm CEO at the moment the takeover attempt occurred;
[12] Academic Background of the target firm CEO at the moment the takeover attempt occurred;
[13] Gender of the CEO of the target firm CEO at the moment the takeover attempt occurred.

7	OPHIR ENERGY PLC.	PREMIER OIL PLC	United Kingdom	451 037,93	5 116 819,81	3,37	2014	2 087 908,37	100%	Yes	Simon Lockett	1964	2005	United Kingdom	Engineering	Male
8	EXXON MOBIL CORPORATION	GENEL ENERGY PLC	United Kingdom	338 702,87	1 756 775,36	7,22	2015	1 650 548,02	100%	Yes	Murat Özgül	1972	2015	Turkey	Engineering	Male
9	AMAZON.COM INC	AO WORLD PLC	United Kingdom	743 310,31	0,00	2,44	2014	1 600 248,17	100%	Yes	John Roberts	1974	2005	United Kingdom	Engineering	Male
10	VONTOBEL HOLDING AG	BB BIOTECH AG	Switzerland	2 330 791,34	2 941 868,99	11,75	2012	953 434,70	100%	Yes	Thomas Szucs	1960	2004	Switzerland	Medicine	Male
11	KESKO OYJ	AKTIA PANKKI OYJ	Finland	667 000,00	2 232 138,00	0,00	2014	900 000,00	100%	Yes	Jussi Laitinen	1956	2008	Finland	Economics and Business	Male
12	CREDIT SUISSE GROUP AG	DEUTSCHE BANK AG	Germany	32 768 687,05	1 232 245 000,00	35,14	2014	16 759 548,00	100%	Yes	Anshu Jain	1960	2012	United Kingdom	Economics and Business	Male
13	UNDISCLOSED ACQUIROR(S)	LONMIN PLC	United Kingdom	292 059,83	1 407 627,05	344,31	2014	263 422,15	100%	Yes	Bennetor Magara	1968	2013	Zimbabwe	Engineering	Male
14	UNDISCLOSED INVESTOR	GOLDBACH GROUP AG	Switzerland	185 269,43	161 864,36	16,59	2014	103 439,97	100%	Yes	Michi Frank	1967	2014	Germany	Economics and Business	Male
15	PORR AG	UBM REALITATENENWICKLUNG AG	Austria	245 208,00	780 602,91	15,86	2014	36 000,00	25%	No	Karl Bier	1954	1998	Austria	Law	Male
16	REHACT AB	AB FASTATOR	Sweden	40 209,71	61 337,28	0,00	2015	3 088 054,00	100%	No	Daniel Hummel	1971	2015	Sweden	Economics and Business	Male
17	LIFCO AB	NOTE AB	Sweden	51 383,01	32 734,92	0,78	2012	26 594,02	100%	Yes	Peter Laveson	1971	2010	Sweden	Economics and Business	Male
18	ALLGEIER SE	EASY SOFTWARE AG	Germany	35 124,90	26 244,41	3,27	2012	21 600,00	100%	Yes	Manfred Wagner	1948	2002	Germany	Engineering	Male
19	ARENDALS FOSSEKOMPANI ASA	GLAMOX AS	Norway	65 989,00	155 036,93	1,53	2012	12 353,61	9%	No	Kjell Stamnes	1948	2001	Norway	Economics and Business	Male
20	TRAKM8 HOLDINGS PLC	BELGRAVIUM TECHNOLOGIES PLC	United Kingdom	7 767,65	12 615,94	0,00	2014	6 368,51	100%	Yes	John Kembery	1944	1997	United Kingdom	Engineering	Male
21	NEURON BIOPHARMA SA	NEOL BIOSOLUTIONS SA	Spain	9 001,00	8 820,00	0,00	2014	4 500,00	50%	No	Javier Velasco	1977	2012	Spain	Engineering	Male
22	CLASS EDITORI SPA	TELESIA SPA	Italy	0,00	9 501,00	0,00	2011	2 430,00	26%	No	Paolo Andrea Panerai	1944	2003	Italy	Law	Male
23	BRIGHTER AB	DIVISION BY ZERO AB	Sweden	0,00	2 867,43	0,00	2015	834,18	100%	No	Swapnil Sansare	1987	2013	India	N.a.	Male
24	KINEXIA SPA	INNOVATEC SPA	Italy	3 025,11	37 925,55	0,00	2013	791,00	71%	No	Roberto Maggio	1967	2012	Italy	Law	Male
25	VODAFONE GROUP PLC	LIBERTY GLOBAL PLC	United Kingdom	5 918 652,24	22 511 191,77	32,78	2014	108 638 574,97	100%	Yes	Michael Thomas Fries	1963	2005	United States of America	Economics and Business	Male
26	ELECTRICITE DE FRANCE SA	E.ON AG	Germany	20 007 990,25	77 068 200,00	42,25	2008	83 875 250,00	100%	Yes	Giuliano Zuccoli	1943	2008	Italy	Engineering	Male
27	NOVARTIS AG	ASTRAZENECA PLC	United Kingdom	81 546 046,45	22 714 556,45	45,97	2014	74 984 486,93	100%	Yes	Pascal Soriot	1959	2012	France	Veterinary	Male
28	FIAT CHRYSLER AUTOMOBILES NV	VOLKSWAGEN AG	Germany	34 322 895,69	156 693 000,00	184,35	2015	72 237 987,00	100%	Yes	Martin Winterkorn	1947	2007	Germany	Physics	Male
29	BHP BILLITON LTD	RIO TINTO PLC	United Kingdom	60 015 008,30	79 818 253,32	41,44	2007	64 590 599,98	100%	Yes	Tom Albanese	1957	2007	United States of America	Economics and Business	Male
30	GLENCORE PLC	RIO TINTO PLC	United Kingdom	60 015 008,30	79 818 253,32	37,95	2014	58 131 895,77	100%	Yes	Sam Maurice Cossart Walsh	1949	2013	Australia	Economics and Business	Male

31	DEUTSCHE TELEKOM AG	BT GROUP PLC	United Kingdom	36 916 160,63	49 353 377,06	6,35	2015	53 543 904,00	100%	Yes	Gavin Patterson	1968	2013	United States of America	Engineering	Male
32	ASSICURAZIONI GENERALI SPA	AXA SA	France	59 986 282,88	74 181 000,00	22,12	2008	51 498 230,00	100%	Yes	Henri de Castrie	1954	2000	France	Law	Male
33	GLENCORE PLC	RIO TINTO PLC	United Kingdom	60 015 008,30	79 818 253,32	42,35	2014	40 987 225,16	100%	Yes	Sam Maurice Cossart Walsh	1949	2013	Australia	Economics and Business	Male
34	VODAFONE GROUP PLC	SKY PLC	United Kingdom	25 343 550,39	3 441 033,05	11,31	2014	36 146 718,23	100%	Yes	David Jeremy Darroch	1962	2007	United Kingdom	Economics and Business	Male
35	BRITISH AMERICAN TOBACCO PLC	IMPERIAL BRANDS PLC	United Kingdom	34 473 281,21	35 132 142,51	28,75	2014	35 489 478,20	100%	Yes	Alison Jane Cooper	1966	2009	United Kingdom	Mathematics and Statistics	Female
36	GLAXOSMITHKLINE PLC	ASTRAZENECA PLC	United Kingdom	81 546 046,45	22 714 556,45	30,12	2009	35 192 161,92	100%	Yes	David R. Brennan	1954	2006	United States of America	Economics and Business	Male
37	ACCIONA SA	ENDESA SA	Spain	18 904 018,56	15 400 000,00	35,30	2007	32 155 000,00	46%	No	Rafael Miranda Robredo	1949	1997	Spain	Engineering	Male
38	PEUGEOT SA	FIAT CHRYSLER AUTOMOBILES NV	Netherlands	22 909 371,52	96 299 000,00	9,22	2015	30 327 361,84	100%	Yes	Sergio Marchionne	1952	2004	Italy	Economics and Business	Male
39	AUSTRALIA AND NEW ZEALAND BANKING GROUP LTD	STANDARD CHARTERED PLC	United Kingdom	28 970 501,15	52 363 062,18	17,56	2014	28 696 654,88	100%	Yes	Peter Sands	1962	2006	United Kingdom	Economics and Business	Male
40	POSCO CO., LTD	THYSSENKRUPP AG	Germany	15 616 208,15	37 370 000,00	37,92	2007	27 782 408,00	100%	Yes	Ekkehard Schulz	1941	1999	Poland	Engineering	Male
41	TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD	INFINEON TECHNOLOGIES AG	Germany	24 067 037,30	10 792 000,00	11,98	2015	23 899 403,00	100%	Yes	Reinhard Ploss	1955	2012	Germany	Engineering	Male
42	UNILEVER NV	BEIERSDORF AG	Germany	24 666 011,17	5 725 000,00	74,38	2015	22 281 840,00	100%	Yes	Stefan F. Heidenreich	1962	2012	Germany	Economics and Business	Male
43	ENI SPA	REPSOL-YPF SA	Spain	22 521 454,63	22 612 000,00	17,05	2010	21 645 909,00	100%	Yes	Antonio Brufau	1948	2004	Spain	Economics and Business	Male
44	NESTLE SA	L'OREAL SA	France	103 668 003,62	15 066 900,00	78,22	2009	21 489 270,00	70%	Yes	Jean-Paul Agon	1956	2006	France	Economics and Business	Male
45	CARREFOUR SA	METRO AG	Germany	3 237 854,46	1 783 000,00	61,51	2007	21 313 445,00	100%	Yes	Hans-Joachim Körber	1946	2001	Germany	Economics and Business	Male
46	NOVARTIS AG	ROCHE HOLDING AG	Switzerland	148 059 437,84	65 553 145,00	179,28	2013	21 045 426,00	67%	Yes	Severin Schwan	1967	2008	Austria	Economics and Business	Male
47	TELEFONICA SA	TIM PARTICIPACOES SA	Brazil	9 233 632,17	5 077 263,70	2,84	2013	20 000 000,00	100%	Yes	Rodrigo Abreu	1969	2013	Brazil	Engineering	Male
48	DEUTSCHE TELEKOM AG	KONINKLIJKE KPN NV	Netherlands	12 221 871,49	13 530 000,00	3,23	2015	19 643 171,00	100%	Yes	Eelco Blok	1957	2011	Netherlands	Economics and Business	Male
49	ASTRAZENECA PLC	SHIRE PLC	United Kingdom	39 974 070,12	56 497 058,36	20,82	2011	19 182 177,55	100%	Yes	Angus C. Russell	1956	2008	United Kingdom	Economics and Business	Male
50	TIM PARTICIPACOES SA	OI SA	Brazil	570 424,24	14 008 612,82	7,32	2014	17 349 392,17	100%	Yes	José Mauro Mettrau Carneiro da Cunha	1949	2009	Brazil	Engineering	Male
51	SKANDINAVISKA ENSKILDA BANKEN AB	DANSKE BANK A/S	Denmark	30 401 727,49	308 080 217,10	13,15	2013	16 482 370,28	100%	Yes	Thomas F. Borgen	1964	2013	Norway	Economics and Business	Male
52	ELECTRICITE DE FRANCE SA	CENTRICA PLC	United Kingdom	10 902 918,54	12 266 722,34	3,87	2014	16 152 376,03	100%	Yes	Sam Laidlaw	1956	2006	United Kingdom	Law	Male
53	VOLKSWAGEN AG	PORSCHE AUTOMOBIL HOLDING SE	Germany	7 950 249,72	23 307 947,00	41,04	2009	15 515 875,00	100%	Yes	Wendelin Wiedeking	1952	1993	Germany	Engineering	Male

54	SCHNEIDER ELECTRIC SA	TYCO INTERNATIONAL LTD	Ireland	33 658 586,48	52 620 000,00	34,94	2011	15 445 089,37	100%	Yes	Edward D. Breen	1956	2002	United States of America	Economics and Business	Male
55	DEUTSCHE TELEKOM AG	KONINKLIJKE KPN NV	Netherlands	12 221 871,49	13 530 000,00	2,42	2014	14 565 839,00	100%	Yes	Eelco Blok	1957	2011	Netherlands	Economics and Business	Male
56	SOCIETE GENERALE SA	COMMERZBANK AG	Germany	15 635 684,63	367 584 000,00	12,44	2014	14 299 647,00	100%	Yes	Martin Blessing	1963	2008	Germany	Economics and Business	Male
57	SOCIETE GENERALE SA	UNICREDIT SPA	Italy	34 676 293,75	404 979 901,00	10,58	2016	14 134 848,00	100%	Yes	Jean Pierre Mustier	1961	2016	France	Engineering	Male
58	HITACHI LTD	RENESAS ELECTRONICS CORPORATION	Japan	16 166 900,05	6 948 630,48	6,57	2015	14 026 294,49	100%	Yes	Hisao Sakuta	1944	2013	Japan	Engineering	Male
59	VONOVIA SE	DEUTSCHE WOHNEN AG	Germany	12 894 531,10	8 052 618,77	21,72	2015	14 000 000,00	100%	Yes	Michael Zahn	1963	2014	Germany	Economics and Business	Male
60	ORANGE SA	KONINKLIJKE KPN NV	Netherlands	12 221 871,49	13 530 000,00	1,89	2013	13 891 138,00	100%	Yes	Eelco Blok	1957	2011	Netherlands	Economics and Business	Male
61	SACYR VALLEHERMOSO SA	EIFFAGE SA	France	8 951 663,63	6 732 937,00	79,10	2007	13 862 373,00	67%	Yes	Jean-François Roverato	1944	1992	France	Engineering	Male
62	EADS NV	BAE SYSTEMS PLC	United Kingdom	20 568 597,90	25 295 916,09	3,49	2012	13 271 496,85	100%	Yes	Ian King	1956	2007	United Kingdom	Economics and Business	Male
63	PUBLICIS GROUPE SA	CAP GEMINI SA	France	16 661 357,14	19 517 618,00	86,16	2016	13 042 315,00	100%	Yes	Paul Hermelin	1952	2002	France	Engineering	Male
64	RIO TINTO PLC	IVANHOE MINES LTD	Canada	5 718 323,38	10 700 678,05	18,39	2011	12 491 251,28	100%	Yes	Lars-Eric Johansson	1945	2007	Sweden	Economics and Business	Male
65	SONAECOM SGPS SA	PORTUGAL TELECOM SGPS SA	Portugal	224 128,13	257 498,82	7,55	2006	12 242 993,00	100%	Yes	Henrique Granadeiro	1943	2003	Portugal	Economics and Business	Male
66	COLOPLAST A/S	SMITH & NEPHEW PLC	United Kingdom	12 700 144,75	6 558 828,12	10,99	2014	12 235 138,54	100%	Yes	Olivier Bohuon	1959	2011	France	Economics and Business	Male
67	OMV AG	MOL MAGYAR OLAJ- ES GAZIPARI NYRT	Hungary	7 953 949,06	9 631 185,71	111,01	2007	11 523 443,76	80%	Yes	Zsolt Hernadi Thomas	1960	2001	Hungary	Economics and Business	Male
68	J SAINSBURY PLC	MARKS & SPENCER GROUP PLC	United Kingdom	6 440 636,17	9 754 471,34	4,24	2012	10 187 338,58	100%	Yes	Marc Bolland	1959	2010	Netherlands	Economics and Business	Male
69	IBERDROLA SA	EDP ENERGIAS DE PORTUGAL SA	Portugal	10 549 111,27	22 795 868,00	2,83	2006	10 016 000,00	91%	Yes	António Mexia	1957	2005	Portugal	Economics and Business	Male
70	AJINOMOTO CO., INC.	SYMRISE AG	Germany	9 266 800,61	4 422 432,42	35,74	2014	10 000 000,00	100%	Yes	Heinz-Jürgen Bertram	1956	2009	Germany	Chemestry	Male
71	ORANGE SA	PROXIMUS SA	Belgium	9 244 987,57	16 509 410,00	33,38	2015	9 626 956,00	100%	Yes	Dominique Leroy	1964	2014	Belgium	Economics and Business	Male
72	TELECOM ITALIA SPA	TELEKOM AUSTRIA AG	Austria	5 135 920,56	8 055 558,90	10,61	2009	9 533 070,00	100%	Yes	Johannes Ametsreiter	1967	2009	Austria	Journalism	Male
73	SIEMENS AG	ALSTOM SA	France	8 133 268,77	8 113 000,00	21,61	2014	9 407 210,37	100%	Yes	Patrick Kron	1953	2003	France	Engineering	Male
74	IRIDE SPA	A2A SPA	Italy	4 830 940,11	7 499 593,00	2,85	2008	9 179 412,00	100%	Yes	Wulf Bernotat	1948	2003	Germany	Law	Male
75	SIEMENS AG	GKN PLC	United Kingdom	5 654 804,05	9 984 073,77	3,69	2016	9 145 254,47	100%	Yes	Nigel Stein	1955	2012	United Kingdom	Engineering	Male
76	SOCIETE GENERALE SA	COMMERZBANK AG	Germany	15 635 684,63	367 584 000,00	7,77	2013	9 104 640,00	100%	Yes	Martin Blessing	1963	2008	Germany	Economics and Business	Male
77	WOLTERS KLUWER NV	REED ELSEVIER NV	Netherlands	19 487 198,75	10 474 000,19	5,84	2010	8 322 886,00	100%	Yes	Erik Engstrom	1963	2009	Sweden	Economics and Business	Male
78	IMPERIAL TOBACCO GROUP PLC	SWEDISH MATCH AB	Sweden	6 151 060,18	5 551 658,39	26,14	2013	8 108 798,46	100%	Yes	Lars Dahlgren	1970	2008	Sweden	Economics and Business	Male

79	ALIBABA GROUP HOLDING LTD	WIRECARD AG	Germany	11 489 128,60	1 331 422,25	34,95	2016	7 893 370,00	100%	Yes	Markus Braun	1970	2002	Austria	Computer Science	Male
80	MUNCHENER RUCKVERSICHERUNGS-GESELLSCHAFT AG	AEGON NV	Netherlands	11 138 370,54	396 291 000,00	4,65	2010	7 690 698,00	100%	Yes	Alexander R. Wynaendts	1960	2008	Netherlands	Economics and Business	Male
81	DEUTSCHE WOHNEN AG	LEG IMMOBILIEN AG	Germany	6 016 652,75	1 266 599,10	63,19	2015	7 600 000,00	95%	Yes	Thomas Hegel	1956	2013	Germany	Law	Male
82	SCHLUMBERGER NV	PETROFAC LTD	United Kingdom	1 987 525,78	6 306 180,66	16,76	2011	7 543 763,31	100%	Yes	Ayman Asfari	1958	2002	Syria	Engineering	Male
83	LIBERTY GLOBAL PLC	KABEL DEUTSCHLAND HOLDING AG	Germany	10 180 137,99	1 604 153,30	54,26	2013	7 524 450,00	100%	Yes	Adrian von Hammerstein	1953	2007	United States of America	Economics and Business	Male
84	DEUTSCHE BANK AG	COMMERZBANK AG	Germany	15 635 684,63	367 584 000,00	11,81	2015	7 439 004,00	100%	Yes	Martin Blessing	1963	2008	Germany	Economics and Business	Male
85	BANCO SANTANDER SA	BANKIA SA	Spain	11 479 897,19	215 043 906,00	4,29	2014	7 028 358,00	61%	Yes	José Sevilla Álvarez	1964	2014	Spain	Economics and Business	Male
86	MTN GROUP LTD	MILLICOM INTERNATIONAL CELLULAR SA	Luxembourg	6 187 144,21	2 778 092,00	71,30	2014	6 889 716,80	100%	Yes	Hans-Holger Albrecht	1963	2012	Germany	Law	Male
87	VOLKSWAGEN AG	SUZUKI MOTOR CORPORATION	Japan	18 944 412,95	14 605 166,18	14,79	2011	6 832 633,97	80%	Yes	Osamu Suzuki	1930	1978	Japan	Economics and Business	Male
88	EXXONMOBIL CORPORATION	OIL SEARCH LTD	Papua New Guinea	7 719 413,71	8 765 531,08	5,61	2014	6 710 584,05	100%	Yes	Peter Robert Botten	1955	1994	United Kingdom	Geology	Male
89	ROLLS-ROYCE HOLDINGS PLC	WARTSILA OYJ	Finland	10 374 893,51	3 436 000,00	10,83	2014	6 706 198,00	100%	Yes	Björn Rosengren	1959	2011	Denmark	Engineering	Male
90	TOTAL SA	OIL SEARCH LTD	Papua New Guinea	7 719 413,71	8 765 531,08	4,19	2016	6 588 032,93	100%	Yes	Peter Robert Botten	1955	1994	United Kingdom	Geology	Male
91	NEFTYANAYA KOMPANIYA LUKOIL OAO	NESTE OIL OYJ	Finland	13 679 136,26	7 013 000,00	24,84	2008	6 366 500,00	100%	Yes	Risto Rinne	1949	2004	Finland	Engineering	Male
92	OUTOKUMPU OYJ	ACERINOX SA	Spain	3 289 344,76	2 668 132,00	17,90	2007	6 228 000,00	100%	Yes	Rafael Naranjo Olmedo	1944	2007	Spain	Engineering	Male
93	UNICREDIT SPA	MEDIOBANCA SPA	Italy	7 613 677,67	57 908 908,25	8,64	2009	6 076 612,00	100%	Yes	Alberto Nagel	1965	2007	Italy	Economics and Business	Male
94	TELENOR ASA	TDC A/S	Denmark	4 158 765,51	8 372 854,63	6,68	2014	6 055 069,47	100%	Yes	Carsten Dilling	1962	2012	Denmark	Economics and Business	Male
95	AVIVA PLC	RSA INSURANCE GROUP PLC	United Kingdom	9 758 511,10	6 864 847,87	7,40	2013	6 046 099,02	100%	Yes	Simon Lee	1961	2011	United Kingdom	English and French	Male
96	TELEFONICA SA	PORTUGAL TELECOM SGPS SA	Portugal	224 128,13	257 498,82	7,72	2010	5 954 633,00	90%	Yes	Zeinal Bava	1965	2008	Portugal	Engineering	Male
97	WOLSELEY PLC	TRAVIS PERKINS PLC	United Kingdom	5 356 312,67	6 577 283,70	25,58	2016	5 653 025,05	100%	Yes	John Carter	1961	2014	United Kingdom	N.a.	Male
98	ALLIANZ SE	VIENNA INSURANCE GROUP AG WIENER VERSICHERUNG GRUPPE	Austria	3 297 919,92	6 739 236,00	48,65	2007	5 641 650,00	100%	Yes	Günter Geyer	1943	2001	Austria	Economics and Business	Male
99	MOBISTAR SA	TELENET GROUP HOLDING NV	Belgium	6 832 630,05	5 335 662,00	46,06	2015	5 585 422,00	100%	Yes	John C. Porter	1957	2013	United States of America	History	Male
100	CONTINENTAL AG	AUTOLIV INC.	United States of America	9 215 804,26	7 129 077,62	73,65	2014	5 364 964,95	100%	Yes	Jan Carlson	1960	2007	Sweden	Engineering	Male
101	THALES SA	SAFRAN SA	France	35 827 013,17	20 221 000,00	17,17	2007	5 262 913,00	100%	Yes	Jean-Paul Béchat	1942	2005	France	Engineering	Male
102	SOLVAY SA	CRODA INTERNATIONAL PLC	United Kingdom	6 548 814,94	1 857 452,32	28,39	2014	4 990 574,64	100%	Yes	Steve Foots	1968	2012	United Kingdom	Chemestry	Male

103	VIVENDI SA	UBISOFT ENTERTAINMENT SA	France	4 567 227,79	2 183 581,00	26,76	2016	4 949 849,00	73%	Yes	Yves Guillemot	1960	1986	France	Computer Science	Male
104	NOVARTIS AG	STADA ARZNEIMITTEL AG	Germany	5 483 952,51	2 709 977,74	39,94	2014	4 949 304,00	100%	Yes	Hartmut Ulrich Retzlaff	1951	1994	Germany	Economics and Business	Male
105	HSBC HOLDINGS PLC	NEDBANK GROUP LTD	South Africa	7 570 512,07	51 815 665,15	13,92	2010	4 776 328,39	70%	Yes	Michael Brown	1967	2010	South Africa	Economics and Business	Male
106	PROSIEBENSAT1 MEDIA AG	AXEL SPRINGER SE	Germany	3 706 785,69	6 077 600,00	56,09	2015	4 712 512,00	100%	Yes	Mathias Dopfner	1963	2002	Germany	Economics and Business	Male
107	BANCO DE SABADELL SA	BANKINTER SA	Spain	7 104 637,91	71 103 670,00	6,83	2006	4 703 000,00	100%	Yes	Jaime Echegoyen Enríquez	1957	2002	Spain	Law	Male
108	SINGAPORE EXCHANGE LTD	LONDON STOCK EXCHANGE GROUP PLC	United Kingdom	13 711 323,06	71,72	13,14	2012	4 664 545,81	100%	Yes	Xavier R. Rolet	1959	2009	France	Economics and Business	Male
109	COBHAM PLC	MEGGITT PLC	United Kingdom	4 217 851,94	5 437 613,64	5,65	2014	4 446 122,96	100%	Yes	Stephen Gareth Young	1955	2013	United Kingdom	Economics and Business	Male
110	WEIR GROUP PLC, THE	METSO OYJ	Finland	4 280 414,75	2 185 464,84	24,53	2014	4 420 239,00	100%	Yes	Matti Kähkönen	1956	2011	Finland	Economics and Business	Male
111	NORDEA BANK AB	ABN AMRO GROUP NV	Netherlands	12 668 285,85	393 171 000,00	16,56	2016	4 384 536,00	100%	Yes	Gerrit Zalm	1952	2010	Netherlands	Economics and Business	Male
112	DEUTSCHE ANNINGTON IMMOBILIEN SE	GAGFAH SA	Luxembourg	4 462 581,97	2 012 370,00	10,91	2014	4 300 000,00	100%	No	Thomas Zinnöcker	1961	2013	Germany	Economics and Business	Male
113	DANAHER CORPORATION	QIAGEN NV	Netherlands	6 975 309,69	110 005,00	15,74	2014	4 265 348,08	100%	Yes	Peer Michael Schatz	1965	2004	Germany	Economics and Business	Male
114	TELEFONICA SA	GRUPO TELEVISA SAB DE CV	Mexico	11 687 924,73	12 947 782,53	3,56	2013	4 260 314,87	100%	Yes	Emilio Fernando Azcárraga Jean	1968	1997	Mexico	Economics and Business	Male
115	ABB LTD	KUKA AG	Germany	4 828 742,12	1 122 745,00	81,24	2016	4 115 785,00	100%	Yes	Till Reuter	1968	2010	Germany	Economics and Business	Male
116	MAN AG	ISUZU MOTORS LTD	Japan	10 428 870,77	8 556 866,74	7,39	2011	4 094 247,51	100%	Yes	Susumu Osoi	1949	2007	Japan	Economics and Business	Male
117	BHP BILLITON PLC	K+S AG	Germany	3 968 679,12	7 489 823,00	37,85	2015	4 013 658,00	100%	Yes	Norbert Steiner	1954	2007	Germany	Law	Male
118	BANCO SANTANDER SA	BANK ZACHODNI WBK SA	Polonia	9 427 483,65	31 822 609,41	42,10	2010	3 941 925,17	96%	No	Mateusz Morawiecki	1968	2007	Poland	Economics and Business	Male
119	BASF AG	LONZA GROUP AG	Switzerland	16 763 279,97	11 789 580,44	67,93	2007	3 901 583,75	100%	Yes	Stefan Borgas	1964	2004	Germany	Economics and Business	Male
120	CARLSBERG A/S	TSINGTAO BREWERY CO., LTD	China	2 362 864,08	1 511 425,68	6,04	2013	3 844 840,49	100%	Yes	Ke Xing Huang	1962	2012	China	Engineering	Male
121	COMPASS GROUP PLC	EDENRED SA	France	5 692 050,42	4 556 000,00	13,76	2010	3 744 249,00	100%	Yes	Jacques Stern	1964	2010	France	Economics and Business	Male
122	VIVENDI SA	MEDIASET SPA	Italy	3 815 365,05	3 732 839,00	2,71	2016	3 532 343,00	71%	Yes	Pier Silvio Berlusconi	1969	2015	Italy	N.a.	Male
123	NESTLE SA	CHOCOLADEFABRIKEN LINDT & SPRUNGLI AG	Switzerland	8 200 694,23	5 963 698,14	43 774,27	2014	3 475 886,80	100%	Yes	Ernst Tanner	1946	1993	Switzerland	Economics and Business	Male
124	ADECCO SA	HAYS PLC	United Kingdom	2 724 148,29	1 489 139,26	1,40	2014	3 308 558,08	100%	Yes	Alistair R. Cox	1961	2007	United Kingdom	Engineering	Male
125	GENERAL ELECTRIC COMPANY	ELEKTA AB	Sweden	3 537 761,29	1 188 245,89	8,36	2015	3 284 198,26	100%	Yes	Tomas Puusepp	1955	2015	Sweden	Engineering	Male
126	HERA SPA	ACEA SPA	Italy	3 279 659,38	4 407 078,00	12,87	2007	3 256 233,00	100%	Yes	Andrea Mangoni	1963	2003	Italy	Economics and Business	Male

127	INTESA SANPAOLO SPA	PARMALAT SPA	Italy	5 750 963,82	4 059 660,00	1,81	2008	3 076 197,00	98%	Yes	Enrico Bondi	1934	2008	Italy	Chemestry	Male
128	VF CORPORATION	PUMA SE	Germany	5 505 099,36	1 157 600,00	220,80	2014	3 001 410,00	100%	Yes	Bjørn Gulden	1965	2013	Switzerland	Economics and Business	Male
129	CP ALL PCL	SIAM MAKRO PCL	Thailand	4 745 601,25	1 504 712,10	0,55	2013	2 995 453,20	64%	No	Suchada Ithijaruku	1953	2010	Thailand	Economics and Business	Male
130	EI DU PONT DE NEMOURS & COMPANY	ARKEMA SA	France	7 704 650,12	7 034 000,00	50,63	2011	2 973 340,00	100%	Yes	Thierry Le Hénaff	1964	2006	France	Engineering	Male
131	CARLYLE GROUP LP	SOCIETE ANONYME MAROCAINE DE L'INDUSTRIE DU RAFFINAGE	Morocco	261 221,31	3 609 323,44	12,41	2016	2 963 932,88	100%	Yes	Jamal Mohamed Ba-Amer	1961	1999	Morocco	Engineering	Male
132	IDEMITSU KOSAN CO., LTD	SHOWA SHELL SEKIYU KK	Japan	4 258 324,74	6 791 268,18	8,38	2015	2 888 979,81	67%	Yes	Tsuyoshi Kameoka	1960	2015	Japan	Economics and Business	Male
133	STATOIL ASA	LUNDIN PETROLEUM AB	Sweden	6 691 948,36	1 285 584,95	13,28	2016	2 849 479,44	88%	Yes	Alex Schneiter	1960	2015	Switzerland	Geology	Male
134	ADECCO SA	HAYS PLC	United Kingdom	2 724 148,29	1 489 139,26	1,91	2016	2 810 781,42	100%	Yes	Alistair R. Cox	1961	2007	United Kingdom	Engineering	Male
135	SONAE SGPS SA	PT MULTIMEDIA SGPS SA	Portugal	2 823 599,50	2 328 908,43	9,08	2006	2 791 144,00	100%	Yes	Zeinal Bava	1965	2003	Portugal	Engineering	Male
136	ACS ACTIVIDADES DE CONSTRUCCION Y SERVICIOS SA	HOCHTIEF AG	Germany	9 372 625,69	3 609 099,00	52,78	2007	2 729 100,00	70%	Yes	Hans-Peter Keitel	1947	1992	Germany	Engineering	Male
137	GOLDMAN SACHS GROUP INC.	PARMALAT SPA	Italy	5 750 963,82	4 059 660,00	1,87	2010	2 637 367,00	82%	Yes	Enrico Bondi	1934	2008	Italy	Chemestry	Male
138	CARILLION PLC	BALFOUR BEATTY PLC	United Kingdom	2 307 903,59	5 494 507,76	3,60	2014	2 602 579,35	100%	Yes	Ian Tyler	1961	2005	United Kingdom	Economics and Business	Male
139	GAZPROM OAO	OMV PETROM SA	Romenia	3 571 392,20	9 091 168,04	0,07	2012	2 600 000,00	51%	Yes	Mariana Gheorghe	1956	2006	Romania	Economics and Business	Female
140	CANON INC.	AXIS AB	Sweden	2 471 601,67	239 467,09	22,26	2014	2 565 313,35	85%	No	Ray Mauritsson	1962	2003	Sweden	Engineering	Male
141	BPOST NV	POSTNL NV	Netherlands	1 848 589,17	2 080 000,00	3,41	2015	2 546 129,00	100%	Yes	Herna Verhagen	1966	2012	Netherlands	Law	Female
142	SOLVAY SA	NV UMICORE SA	Belgium	8 837 920,41	4 600 597,00	7,51	2009	2 527 200,00	100%	Yes	Marc Grynberg	1965	2008	Belgium	Engineering	Male
143	VODAFONE GROUP PLC	TALKTALK TELECOM GROUP PLC	United Kingdom	2 035 389,17	1 109,36	3,00	2013	2 514 226,69	100%	Yes	Diana Mary Harding	1967	2010	United Kingdom	Economics and Business	Female
144	WELLS FARGO & COMPANY INC.	JUPITER FUND MANAGEMENT PLC	United Kingdom	3 686 685,16	275 798,70	4,89	2014	2 500 365,48	100%	Yes	Maarten F. Slendebroek	1961	2014	Netherlands	Law	Male
145	IBERDROLA SA	SOLARIA ENERGIA Y MEDIO AMBIENTE SA	Spain	178 657,83	142 714,00	21,18	2008	2 500 000,00	100%	Yes	Enrique Díaz-Tejeiro Gutiérrez	1944	2007	Spain	Engineering	Male
146	OMV AG	ÖSTERREICHISCHE ELEKTRIZITÄTSWIRTSCHAFTS-AG	Austria	6 998 689,15	4 690 708,20	34,80	2006	2 499 000,00	51%	Yes	Hans Haider	1942	2003	Austria	Engineering	Male
147	OI SA	PORTUGAL TELECOM SGPS SA	Portugal	224 128,13	257 498,82	4,08	2013	2 495 399,00	100%	Yes	Zeinal Bava	1965	2008	Portugal	Engineering	Male
148	ADECCO SA	HAYS PLC	United Kingdom	2 724 148,29	1 489 139,26	1,44	2011	2 489 448,02	100%	Yes	Alistair R. Cox	1961	2007	United Kingdom	Engineering	Male
149	UNILEVER PLC	HINDUSTAN UNILEVER LTD	India	28 405 172,75	2 127 989,17	6,59	2013	2 464 045,04	15%	No	Nitin Paranjpe	1963	2008	India	Engineering	Male

150	TOKYO ELECTRON LTD	ASM INTERNATIONAL NV	Netherlands	3 511 704,03	2 177 202,00	42,68	2015	2 424 620,00	100%	Yes	Chuck del Prado	1961	2008	Netherlands	Engineering	Male
151	TDC A/S	COM HEM HOLDING AB	Sweden	2 386 197,70	1 051 142,74	5,83	2014	2 423 554,76	100%	Yes	Anders Nilsson	1967	2014	Sweden	Law	Male
152	FINMECCANICA SPA	QINETIQ GROUP PLC	United Kingdom	1 843 358,97	1 133 315,30	2,79	2007	2 361 038,96	100%	Yes	Graham Love	1954	2005	United Kingdom	Economics and Business	Male
153	CENTRICA PLC	DRAX GROUP PLC	United Kingdom	1 240 894,87	3 962 985,55	9,46	2008	2 353 497,66	100%	Yes	Dorothy Carrington Thompson	1961	2005	United Kingdom	Economics and Business	Male
154	HARMONY GOLD MINING COMPANY LTD	ACACIA MINING PLC	United Kingdom	914 934,51	1 853 930,49	4,12	2016	2 312 120,07	100%	Yes	Brad Gordon	1962	2013	Australia	Engineering	Male
155	CHINA PETROLEUM & CHEMICAL CORPORATION	MAUREL & PROM SA	France	703 225,11	466 069,00	10,71	2011	2 304 641,00	100%	Yes	Jean-François Hénin	1944	2007	France	Economics and Business	Male
156	CARLSBERG A/S	BEIJING YANJING BREWERY CO., LTD	China	2 165 819,85	2 317 448,36	0,77	2013	2 289 705,36	100%	Yes	Xiaodong Zhao	1972	2012	China	Engineering	Male
157	ACTAVIS PLC	ALMIRALL SA	Spain	1 444 141,92	2 148 677,00	11,42	2014	2 276 035,00	100%	Yes	Eduardo Javier Sanchiz Yrazu	1956	2011	Spain	Economics and Business	Male
158	FOSUN INTERNATIONAL LTD	THOMAS COOK GROUP PLC	United Kingdom	2 416 281,36	5 174 805,23	1,92	2015	2 270 241,20	95%	Yes	Peter Fankhauser	1960	2014	Switzerland	Economics and Business	Male
159	EXXONMOBIL CORPORATION	TULLOW OIL PLC	United Kingdom	3 227 359,28	9 195 783,87	11,55	2014	2 244 996,81	100%	Yes	Aidan Heavey	1953	1985	Ireland	Economics and Business	Male
160	ROYAL MAIL PLC	POSTNL NV	Netherlands	1 848 589,17	2 080 000,00	3,41	2015	2 207 853,00	100%	Yes	Herna Verhagen	1966	2012	Netherlands	Law	Female
161	KONINKLIJKE BOSKALIS WESTMINSTER NV	FUGRO NV	Netherlands	1 098 597,08	1 898 304,00	28,32	2014	2 201 000,00	100%	Yes	Paul van Riel	1956	2012	Netherlands	Mathematics and Statistics	Male
162	WEIR GROUP PLC, THE	OUTOTEC OYJ	Finland	1 300 162,58	899 600,00	7,79	2014	2 197 458,00	100%	Yes	Pertti Korhonen	1961	2010	Sweden	Engineering	Male
163	DEBENHAMS PLC	STOCKMANN OYJ ABP	Finland	180 685,54	1 504 007,59	20,50	2010	2 129 264,00	100%	Yes	Hannu Penttilä	1953	2001	Finland	Law	Male
164	GLAXOSMITHKLINE PLC	MORPHOSYS AG	Germany	2 268 805,06	399 779,19	56,60	2013	2 096 425,00	100%	Yes	Simon Moroney	1959	1998	New Zealand	Chemestry	Male
165	VOLKSWAGEN AG	MAN AG	Germany	13 437 815,90	5 958 651,00	110,25	2008	2 083 363,00	23%	No	Håkan Samuelsson	1951	2005	Sweden	Engineering	Male
166	AMS AG	DIALOG SEMICONDUCTOR PLC	United Kingdom	1 983 033,08	1 314 755,70	17,30	2014	2 076 351,43	100%	Yes	Jalal Bagherli	1956	2005	United Kingdom	Engineering	Male
167	FRESENIUS SE & CO. KGAA	RHON-KLINIKUM AG	Germany	2 009 342,84	1 150 500,00	21,15	2012	2 023 025,00	100%	Yes	Wolfgang Pföhler	1953	2005	Germany	Economics and Business	Male
168	BANCO COMERCIAL PORTUGUES SA	BANCO BPI SA	Portugal	1 708 972,10	32 638 695,00	1,17	2014	1 966 848,00	100%	Yes	Fernando Ulrich	1952	2004	Portugal	N.a.	Male
169	BNP PARIBAS SA	BANCO COMERCIAL PORTUGUES SA	Portugal	4 111 005,49	53 781 865,00	41,77	2011	1 960 349,00	100%	Yes	Carlos Ferreira	1949	2008	Portugal	Law	Male
170	SOLVAY SA	SYMRISE AG	Germany	9 266 800,61	4 422 432,42	15,64	2010	1 934 492,00	100%	Yes	Heinz-Jürgen Bertram	1958	2009	Germany	Chemestry	Male
171	C&C GROUP PLC	MITCHELLS & BUTLERS PLC	United Kingdom	1 572 135,75	3 869 722,79	4,79	2014	1 920 878,69	100%	Yes	Alistair Darby	1966	2012	United Kingdom	Chemestry	Male
172	IMMOFINANZ AG	CA IMMOBILIEN ANLAGEN AG	Austria	2 420 724,14	3 460 025,77	16,88	2016	1 907 611,00	74%	Yes	Frank Nickel	1959	2016	Austria	Economics and Business	Male

173	SALZGITTER AG	AURUBIS AG	Germany	3 078 007,15	3 742 813,00	53,94	2015	1 892 903,00	75%	Yes	Bernd Drouven	1955	2014	Germany	Engineering	Male
174	QATAR NATIONAL BANK SAQ	NATIONAL SOCIETE GENERAL BANK SAE	Egypt	1 780 877,66	10 356 521,33	2,88	2012	1 886 332,88	97%	No	Frédéric Oudéa	1963	2008	France	Economics and Business	Male
175	HEXAGON AB	AVEVA GROUP PLC	United Kingdom	1 453 077,29	370 050,16	19,32	2015	1 850 000,00	100%	Yes	Richard Longdon	1956	1999	United Kingdom	Engineering	Male
176	BANCO DE GALICIA Y BUENOS AIRES SA	BANCO PATAGONIA SA	Argentina	1 841 854,98	4 201 288,23	2,20	2016	1 845 006,31	100%	Yes	João Carlos de Nóbrega Pecego	1964	2014	Brazil	Economics and Business	Male
177	GLAXOSMITHKLINE PLC	GENMAB A/S	Denmark	8 453 698,40	966 600,97	13,67	2013	1 839 528,06	90%	Yes	Jan G. J. van de Winke	1962	2010	Netherlands	Pharmacy	Male
178	LVMH MOET HENNESSY LOUIS VUITTON SA	TREASURY WINE ESTATES LTD	Australia	6 547 408,19	3 558 866,01	2,50	2014	1 825 151,42	100%	Yes	Michael Anthony Clarke	1965	2014	South Africa	Economics and Business	Male
179	DEUTSCHE BORSE AG	BOLSAS Y MERCADOS ESPANOLES HOLDING DE MERCADOS Y SISTEMAS FINANCIEROS SA	Spain	2 219 993,00	506 480,00	19,05	2011	1 802 333,00	100%	Yes	Antonio J. Zoido Martínez	1945	2002	Spain	Law	Male
180	BAYERISCHE MOTOREN WERKE AG	SGL CARBON SE	Germany	1 388 575,82	1 686 150,00	22,43	2013	1 795 189,00	84%	Yes	Robert J. Koehler	1947	1994	Germany	Economics and Business	Male
181	THYSSENKRUPP AG	SALZGITTER AG	Germany	2 869 631,75	867 665,00	33,91	2016	1 770 518,00	100%	Yes	Heinz Jörg Fuhrmann	1956	2011	Germany	Engineering	Male
182	BANK POLSKA KASA OPIEKI SA	BANK MILLENNIUM SA	Polonia	2 597 592,16	16 918 556,77	1,29	2010	1 726 695,18	100%	Yes	Bogusław Kott	1947	2003	Poland	Economics and Business	Male
183	DEUTSCHE WOHNEN AG	GSW IMMOBILIEN AG	Germany	5 270 957,28	2 871 884,00	33,38	2013	1 697 470,00	100%	No	Thomas Zinnöcker	1961	2005	Germany	Economics and Business	Male
184	SAP AG	TEMENOS GROUP AG	Switzerland	7 569 094,13	1 063 356,47	15,69	2010	1 613 019,00	100%	Yes	Andreas Andreades	1965	2003	Cyprus	Engineering	Male
185	DOW CHEMICAL COMPANY, THE	ELEMENTIS PLC	United Kingdom	1 505 841,72	1 117 068,65	3,17	2014	1 547 323,64	100%	Yes	David Dutro	1954	2007	United States of America	Economics and Business	Male
186	SUN PHARMACEUTICAL INDUSTRIES LTD	STADA ARZNEIMITTEL AG	Germany	5 483 952,51	2 709 977,74	31,90	2010	1 516 796,00	100%	Yes	Hartmut Ulrich Retzlaff	1951	1994	Germany	Economics and Business	Male
187	RYANAIR HOLDINGS PLC	AIR BERLIN PLC	United Kingdom	69 379,50	1 382 553,00	0,70	2016	1 500 000,00	100%	Yes	Stefan Pichler	1957	2015	Germany	Economics and Business	Male
188	AG BARR PLC	BRITVIC PLC	United Kingdom	2 924 531,16	630,35	5,16	2013	1 463 509,41	100%	Yes	Simon Litherland	1964	2013	Zimbabwe	Economics and Business	Male
189	NOVARTIS AG	GENFIT SA	France	745 501,18	165 268,00	37,76	2015	1 418 055,00	100%	Yes	Jean-François Mouney	1956	1995	France	Economics and Business	Male
190	CARLYLE GROUP LP	FAURECIA SA	France	8 990 271,34	6 635 591,00	12,79	2013	1 414 975,00	57%	Yes	Yann Delabrière	1950	2007	France	Mathematics and Statistics	Male
191	PUBLICIS GROUPE SA	CRITEO SA	France	1 629 635,30	817 765,59	23,39	2014	1 352 128,11	100%	Yes	Jean-Baptiste Rudelle	1969	2005	France	Engineering	Male
192	TRAVIS PERKINS PLC	SIG PLC	United Kingdom	1 174 281,16	1 504 934,07	2,23	2014	1 349 553,98	100%	Yes	Stuart Mitchell	1960	2013	United Kingdom	Economics and Business	Male
193	SUN PHARMACEUTICAL INDUSTRIES LTD	STADA ARZNEIMITTEL AG	Germany	5 483 952,51	2 709 977,74	22,65	2012	1 349 216,00	100%	Yes	Hartmut Ulrich Retzlaff	1951	1994	Germany	Economics and Business	Male
194	MITSUBISHI HEAVY INDUSTRIES LTD	VESTAS WIND SYSTEMS A/S	Denmark	12 411 877,29	9 897 999,96	8,18	2012	1 340 461,96	100%	Yes	Ditlev Engel	1964	2005	Denmark	Economics and Business	Male
195	DEUTSCHE WOHNEN AG	GAGFAH SA	Luxembourg	4 462 581,97	2 012 370,00	8,32	2013	1 264 753,00	66%	Yes	Stephen Charlton	1958	2012	United Kingdom	Economics and Business	Male

196	ASTRAZENECA PLC	AMARIN CORPORATION PLC	United Kingdom	905 716,01	134 743,64	9,99	2012	1 257 404,22	100%	Yes	Joseph S. Zakrzewski	1963	2010	United States of America	Engineering	Male
197	EI TOWERS SPA	RAI WAY SPA	Italy	1 380 399,95	366 940,00	3,15	2015	1 225 333,00	100%	Yes	Stefano Ciccotti	1960	2000	Italy	Engineering	Male
198	CARLSBERG A/S	C&C GROUP PLC	Ireland	1 224 576,71	1 088 100,00	3,52	2012	1 208 885,00	100%	Yes	Stephen Glancey	1960	2012	Ireland	Economics and Business	Male
199	LVMH MOET HENNESSY LOUIS VUITTON SA	YOOX SPA	Italy	2 654 670,95	2 437 883,00	13,65	2013	1 180 478,00	100%	Yes	Federico Marchetti	1969	2000	Italy	Economics and Business	Male
200	WM MORRISON SUPERMARKETS PLC	OCADO GROUP PLC	United Kingdom	2 596 645,57	1 013 124,58	1,22	2013	1 173 324,23	100%	Yes	Timothy Steiner	1970	2000	United Kingdom	Economics and Business	Male
201	TELEFONICA SA	UNITED INTERNET AG	Germany	11 767 000,31	5 833 969,00	4,87	2009	1 154 244,00	100%	Yes	Ralph Dommermuth	1963	1988	Germany	N.a.	Male
202	GLAXOSMITHKLINE PLC	ASPEN PHARMACARE HOLDINGS LTD	South Africa	9 930 017,13	3 441 922,32	2,91	2009	1 113 527,84	100%	Yes	Stephen Saad	1964	1997	South Africa	Economics and Business	Male
203	GROUPE BRUXELLES LAMBERT SA	IMERYS SA	France	6 283 484,23	6 531 181,00	50,60	2011	1 085 862,00	26%	Yes	Gilles Michel	1956	2010	France	Engineering	Male
204	CAIXABANK SA	BANCO BPI SA	Portugal	1 708 972,10	32 638 695,00	1,17	2014	1 082 420,00	56%	Yes	Fernando Ulrich	1952	2004	Portugal	N.a.	Male
205	SIEMENS AG	NORDEX SE	Germany	860 331,32	1 664 990,06	20,24	2015	1 046 441,00	100%	Yes	Lars Bondo Krogsgaard	1966	2015	Denmark	Law	Male
206	VESUVIUS PLC	MORGAN ADVANCED MATERIALS PLC	United Kingdom	1 084 427,85	1 047 415,19	4,04	2014	1 045 963,10	100%	Yes	Mark Robertshaw	1968	2006	United States of America	Economics and Business	Male
207	ANGLO AMERICAN PLC	KATANGA MINING LTD	Canada	2 337 354,72	4 919 034,37	12,34	2007	1 032 329,38	100%	Yes	Arthur Ditto	1944	2005	United States of America	Engineering	Male
208	CAIXABANK SA	LIBERBANK SA	Spain	1 293 677,65	25 838 210,00	2,01	2015	1 018 359,00	100%	Yes	Manuel Menéndez Menéndez	1959	2011	Spain	Economics and Business	Male
209	COMPAGNIE DE SAINT-GOBAIN SA	GERRESHEIMER AG	Germany	2 094 819,50	1 436 334,76	28,62	2011	1 008 568,00	100%	Yes	Uwe Röhrhoff	1962	2010	Germany	Economics and Business	Male
210	AG BARR PLC	BRITVIC PLC	United Kingdom	2 924 531,16	630,35	4,01	2012	996 083,31	100%	Yes	Paul Moody	1957	2003	United Kingdom	N.a.	Male
211	HEINEKEN NV	UNITED BREWERIES LTD	India	2 697 794,42	546 877,78	14,10	2015	991 463,92	29%	Yes	Shekhar Ramamurthy	1960	2015	India	Engineering	Male
212	BAE SYSTEMS PLC	BABCOCK INTERNATIONAL GROUP PLC	United Kingdom	5 194 103,79	7 141 051,15	3,50	2006	954 644,37	100%	Yes	Archibald Bethel	1948	2003	United Kingdom	Law	Male
213	BNP PARIBAS SA	BANK GOSPODARKI ZYWNOSCIOWEJ SA	Polonia	1 298 166,26	15 976 292,93	11,75	2013	954 192,33	89%	No	Jacek Bartkiewicz	1954	2002	Poland	Economics and Business	Male
214	NOVARTIS AG	THROMBOGENICS NV	Belgium	122 107,18	123 710,95	18,18	2014	938 453,00	100%	Yes	Patrik De Haes	1958	2008	Belgium	Medicine	Male
215	RYANAIR HOLDINGS PLC	NORWEGIAN AIR SHUTTLE ASA	Norway	692 654,88	3 258 498,59	31,12	2015	934 056,39	100%	Yes	Bjorn Kjos	1946	2002	Norway	Law	Male
216	DRILLISCH AG	FREENET AG	Germany	3 942 358,36	3 070 516,66	7,65	2011	932 623,00	78%	Yes	Christoph Vilanek	1968	2009	Austria	Economics and Business	Male
217	COMPUGROUP MEDICAL SE	AGFA GEVAERT NV	Belgium	667 985,01	3 597 032,00	3,20	2016	930 000,00	100%	Yes	Christian Reinaudo	1954	2010	France	Physics	Male
218	CARLYLE GROUP LP	CHEMRING GROUP PLC	United Kingdom	547 417,79	797 365,07	3,63	2013	926 749,01	100%	Yes	Mark Papworth	1964	2012	United Kingdom	Engineering	Male

219	INDIAN HOTELS CO., LTD, THE	ORIENT-EXPRESS HOTELS LTD	United Kingdom	1 045 324,80	1 378 835,60	7,14	2012	901 690,23	93%	Yes	Philip Mengel	1945	2012	United States of America	Economics and Business	Male
220	BANCO DE SABADELL SA	LIBERBANK SA	Spain	1 293 677,65	25 838 210,00	1,22	2016	900 000,00	100%	Yes	Manuel Menéndez Menéndez	1959	2011	Spain	Economics and Business	Male
221	ASTELLAS PHARMA INC.	BASILEA PHARMACEUTICA AG	Switzerland	769 270,82	300 223,93	47,61	2013	898 072,93	100%	Yes	Ronald Scott	1955	2013	Switzerland	Economics and Business	Male
222	GLENCORE XSTRATA PLC	OZ MINERALS LTD	Australia	1 878 003,35	1 805 396,83	2,92	2013	894 948,57	90%	Yes	Terry Burgess	1950	2009	Australia	Engineering	Male
223	CAIRO COMMUNICATION SPA	RCS MEDIAGROUP SPA	Italy	637 718,98	1 561 482,00	0,57	2016	876 468,00	100%	Yes	Laura Cioli	1963	2015	Italy	Economics and Business	Female
224	TELEFONICA SA	OI SA	Brazil	570 424,24	14 008 612,82	0,30	2016	857 412,48	100%	Yes	José Mauro Mettrau Carneiro da Cunha	1949	2009	Brazil	Engineering	Male
225	GENEL ENERGY PLC	DNO INTERNATIONAL ASA	Norway	1 133 155,56	668 579,17	0,79	2011	845 902,17	100%	Yes	Helge Eide	1954	2000	Norway	Engineering	Male
226	COMPAGNIE DE SAINT-GOBAIN SA	VIDRALA SA	Spain	2 098 841,00	1 200 494,00	36,41	2014	836 658,00	100%	Yes	Carlos Delclaux Zulueta	1956	2002	Spain	Economics and Business	Male
227	GILDEMEISTER AG	KUKA AG	Germany	4 828 742,12	1 122 745,00	26,90	2007	809 704,00	100%	Yes	Gerhard Wiedemann	1946	2007	Germany	Engineering	Male
228	ISS A/S	SPOTLESS GROUP HOLDINGS LTD	Australia	851 407,83	1 288 740,87	0,73	2016	808 532,68	100%	Yes	Martin Sheppard	1967	2015	Australia	Economics and Business	Male
229	EXXONMOBIL CORPORATION	GULF KEYSTONE PETROLEUM LTD	United Kingdom	277 218,82	548 065,72	121,09	2014	769 533,40	100%	Yes	Todd Francis Kozel	1967	2001	United States of America	Engineering	Male
230	CELESIO AG	ORIOLA-KD OYJ	Finland	352 945,43	908 306,30	3,77	2015	767 356,00	100%	Yes	Eero Hautaniemi	1965	2006	Finland	Economics and Business	Male
231	KBC GROEP NV/ KBC GROUPE SA	PERMANENT TSB GROUP HOLDINGS PLC	Ireland	1 023 064,86	978 000,00	2,80	2016	762 752,00	100%	Yes	Jeremy John Masding	1966	2012	United Kingdom	Economics and Business	Male
232	TULLETT PREBON PLC	GFI GROUP INC.	United States of America	572 281,99	1 121 770,34	7,56	2008	755 915,72	100%	Yes	Michael Adrian Gooch	1959	1987	United States of America	N.a.	Male
233	BNP PARIBAS SA	BANCA MONTE DEI PASCHI DI SIENA SPA	Italy	114 761,60	129 498 962,29	2 782,00	2014	747 387,00	100%	Yes	Fabrizio Viola	1956	2012	Italy	Economics and Business	Male
234	NOVARTIS AG	MORPHOSYS AG	Germany	2 268 805,06	399 779,19	25,15	2013	722 816,00	94%	Yes	Simon Moroney	1959	1998	New Zealand	Chemestry	Male
235	ROCHE HOLDING AG	FOUNDATION MEDICINE INC.	United States of America	2 077 384,30	140 918,08	15,36	2015	713 585,71	47%	No	Michael J. Pellini	1965	2011	United States of America	Economics and Business	Male
236	COLONIA REAL ESTATE AG	DEUTSCHE WOHNEN AG	Germany	12 894 531,10	8 052 618,77	40,00	2007	706 853,00	96%	Yes	Andreas Lehner	1955	2004	Germany	Engineering	Male
237	TRAVIS PERKINS PLC	GALIFORM PLC	United Kingdom	3 262 613,19	910 295,81	1,19	2008	698 762,73	100%	Yes	Matthew Ingle	1952	2005	United Kingdom	N.a.	Male
238	ASTRAZENECA PLC	EVOTEC AG	Germany	1 980 248,64	482 753,93	3,56	2014	658 025,00	100%	Yes	Werner Lanthaler	1968	2009	Austria	Economics and Business	Male
239	SONAECOM SGPS SA	ZON MULTIMÉDIA - SERVIÇOS DE TELECOMUNICAÇÕES E MULTIMÉDIA SGPS SA	Portugal	2 823 599,50	2 328 908,43	2,42	2012	648 794,00	100%	Yes	Rodrigo Costa	1959	2007	Portugal	N.a.	Male

240	CAIXABANK SA	BANCO BPI SA	Portugal	1 708 972,10	32 638 695,00	1,14	2016	644 523,00	39%	No	Fernando Ulrich	1952	2004	Portugal	N.a.	Male
241	CARLYLE GROUP LP	CLEARVIEW WEALTH LTD	Australia	373 298,80	1 499 338,12	0,58	2015	625 243,27	100%	Yes	Simon Swanson	1957	2010	Australia	Economics and Business	Male
242	GILEAD SCIENCES INC.	GENFIT SA	France	745 501,18	165 268,00	37,95	2016	622 572,00	100%	Yes	Jean-François Mouney	1956	1995	France	Economics and Business	Male
243	TENARIS SA	HUNTING PLC	United Kingdom	1 124 464,85	1 067 789,89	8,90	2015	597 384,82	100%	Yes	Dennis L. Proctor	1954	2001	United Kingdom	Economics and Business	Male
244	CAIRO COMMUNICATION SPA	RCS MEDIAGROUP SPA	Italy	637 718,98	1 561 482,00	0,57	2016	596 930,00	60%	No	Laura Cioli	1963	2015	Italy	Economics and Business	Female
245	HERA SPA	ASCOPIAVE SPA	Italy	831 223,45	541 924,00	2,86	2016	576 184,00	100%	Yes	Zugno Fulvio	1955	2011	Italy	Economics and Business	Male
246	TAG IMMOBILIEN AG	ADLER REAL ESTATE AG	Germany	744 092,30	1 836 020,00	10,15	2016	573 985,00	100%	Yes	Arndt Krienen	1966	2016	Germany	Law	Male
247	ING GROEP NV	BINCKBANK NV	Netherlands	299 295,00	3 924 061,00	7,15	2015	570 130,00	100%	Yes	Binckbank NV	1973	2015	Belgium	Economics and Business	Male
248	CARLYLE GROUP LP	OZFOREX GROUP LTD	Australia	253 107,72	135 618,55	1,72	2015	567 862,75	100%	Yes	Richard Kimber	1969	2015	Australia	Mathematics and Statistics	Male
249	DANONE SA	SOCIETE CENTRALE LAITIERE SA	Morocco	532 915,71	298 098,20	118,98	2012	550 000,00	38%	No	Hassan Bouhemou	1968	2001	Morocco	Engineering	Male
250	TULLETT PREBON PLC	COMPAGNIE FINANCIERE TRADITION SA	Switzerland	580 835,20	926 472,08	87,59	2011	516 358,75	100%	Yes	Patrick Combes	1953	1996	France	Economics and Business	Male
251	OLAM INTERNATIONAL LTD	AMSTERDAM COMMODITIES NV	Netherlands	592 936,23	345 964,00	23,98	2015	508 316,00	100%	Yes	Erik Rietkerk	1960	2013	Netherlands	Engineering	Male
252	BOUYGUES SA	IMPLENIA AG	Switzerland	1 040 718,87	2 476 747,19	20,56	2007	485 618,45	100%	Yes	Christian Bubb	1943	2004	Switzerland	Engineering	Male
253	SAMSUNG ELECTRONICS CO., LTD	FINGERPRINT CARDS AB	Sweden	509 708,35	365 246,19	1,19	2013	480 473,40	100%	Yes	Johan Carlström,	1963	2009	Sweden	Economics and Business	Male
254	TULLETT PREBON PLC	GFI GROUP INC.	United States of America	572 281,99	1 121 770,34	13,23	2007	473 739,83	100%	Yes	Michael Adrian Gooch	1959	1987	United States of America	N.a.	Male
255	DEUTSCHE TELEKOM AG	NETIA SA	Polonia	449 154,75	623 202,67	1,06	2013	472 190,60	100%	Yes	Miroslaw Godlewski	1967	2007	Poland	Engineering	Male
256	FORTESCUE METALS GROUP LTD	ATLAS IRON LTD	Australia	93 633,90	384 354,83	0,54	2014	436 651,83	100%	Yes	Kenneth Edward Brinsden	1970	2012	Australia	Engineering	Male
257	SANOFI SA	ADOCIA SAS	France	99 169,31	78 459,00	79,35	2016	410 272,00	100%	Yes	Gérard Soula	1943	2011	France	Chemestry	Male
258	ADLER REAL ESTATE AG	WESTGRUND AG	Germany	556 568,49	238 564,30	3,33	2015	408 653,00	94%	No	Arndt Krienen	1966	2014	Germany	Economics and Business	Male
259	BANCA PROFILO SPA	PIRELLI & C REAL ESTATE SPA	Italy	106 200,40	155 790,00	4,20	2010	400 000,00	100%	Yes	Marco Tronchetti Provera	1948	1992	Italy	Economics and Business	Male
260	ENI SPA	SNAM RETE GAS SPA	Italy	14 282 603,97	16 653 410,00	3,63	2006	392 164,00	5%	No	Carlo Malacarne	1953	2006	Italy	Engineering	Male
261	BLACKSTONE GROUP LP, THE	ESTIA HEALTH LTD	Australia	535 743,04	1 212 256,93	3,23	2016	388 714,83	100%	Yes	Paul Gregersen	1965	2014	United Kingdom	Engineering	Male
262	TUBOS REUNIDOS SA	TUBACEX SA	Spain	445 478,91	560 012,27	6,63	2008	376 198,00	82%	Yes	Alvaro Videgain Muro	1951	1992	Spain	Economics and Business	Male

263	SPARKLE ROLL GROUP LTD	BANG & OLUFSEN A/S	Denmark	598 049,79	292 899,67	9,25	2016	375 787,99	87%	Yes	Tue Mantoni	1975	2011	Denmark	Economics and Business	Male
264	SAMSUNG ELECTRONICS CO., LTD	AIXTRON SE	Germany	1 302 210,55	337 711,00	10,76	2014	375 359,00	100%	Yes	Martin Goetzeler	1962	2013	Germany	Economics and Business	Male
265	MORI SEIKI CO., LTD	GILDEMEISTER AG	Germany	3 608 524,29	1 531 219,51	9,43	2010	370 669,00	95%	Yes	Ruediger Kapitza	1951	1996	Germany	Engineering	Male
266	NATIONAL BANK of GREECE SA	EUROBANK PROPERTIES REAL ESTATE INVESTMENT COMPANY SA	Greece	931 591,98	1 003 297,00	4,96	2013	362 950,00	100%	Yes	Fokion C. Karavias	1964	2005	Greece	Engineering	Male
267	BRITISH AMERICAN TOBACCO PLC	BENTOEL INTERNASIONAL INVESTAMA TBK, PT	Indonesia	921 019,06	843 440,82	0,03	2009	359 130,65	85%	No	Nicolaas Bernadus Tirtadinata	1958	2007	Indonesia	Economics and Business	Male
268	COMPAGNIE GENERALE DES ETABLISSEMENTS MICHELIN SCA	JK TYRE & INDUSTRIES LTD	India	394 641,12	841 292,58	0,44	2014	334 045,73	100%	Yes	Raghupati Singhania	1945	1975	India	Natural Sciences	Male
269	PENDRAGON PLC	LOOKERS PLC	United Kingdom	460 183,84	2 135 613,88	1,22	2006	312 453,38	100%	Yes	Henry Kenneth Surgenor	1944	2001	United Kingdom	N.a.	Male
270	NATIONAL BANK of GREECE SA	BANCA TRANSILVANIA SA	Romenia	1 981 383,96	12 706 477,24	0,15	2009	311 987,47	100%	Yes	Robert C. Rekkers	1959	2002	Netherlands	Economics and Business	Male
271	ASAHI GLASS CO., LTD	VINYTHAI PCL	Thailand	625 947,49	507 191,62	0,25	2016	283 049,67	59%	No	Vincent De Cuyper	1961	2014	Belgium	Engineering	Male
272	TESCO PLC	MOTHERCARE PLC	United Kingdom	229 440,60	401 742,16	4,06	2011	282 551,29	100%	Yes	Ben Gordon	1960	2002	United Kingdom	Economics and Business	Male
273	DIC ASSET AG	WCM BETEILIGUNGS & GRUNDBESITZ AG	Germany	516 429,65	261 710,76	2,19	2016	280 192,00	80%	Yes	Stavros Efremidis	1968	2014	Germany	Economics and Business	Male
274	UNITED INTERNET AG	QSC AG	Germany	239 012,78	374 430,69	2,61	2013	275 268,00	100%	Yes	Bernd Schlobohm	1960	1999	Germany	Engineering	Male
275	DNO INTERNATIONAL ASA	GULF KEYSTONE PETROLEUM LTD	United Kingdom	277 218,82	548 065,72	6,50	2016	270 817,52	100%	Yes	Jón Ferrier	1956	2015	United Kingdom	Engineering	Male
276	TULLOW OIL PLC	BOWLEVEN PLC	United Kingdom	94 204,72	344 542,29	1,09	2012	262 758,34	100%	Yes	Kevin Hart	1969	2006	United Kingdom	Mathematics and Statistics	Male
277	JCDECAUX SA	AFFICHAGE HOLDING SA	Switzerland	1 167 630,13	202 721,79	107,84	2011	257 336,22	70%	Yes	Daniel Hofer	1963	2010	Switzerland	Economics and Business	Male
278	REMY COINTREAU SA	LAURENT-PERRIER SA	France	410 858,99	188 260,00	70,80	2016	248 692,00	60%	Yes	Stéphanie Meneux de Nonancourt	1963	1999	France	Economics and Business	Female
279	GJENSIDIGE FORSIKRING ASA	ALM BRAND A/S	Denmark	1 887 670,05	704 778,51	0,97	2012	235 695,53	100%	Yes	Søren Boe Mortensen	1955	2001	Denmark	Economics and Business	Male
280	RIO TINTO PLC	IVANHOE MINES LTD	Canada	5 718 323,38	10 700 678,05	13,04	2012	230 118,17	2%	No	Lars-Eric Johansson	1945	2007	Sweden	Economics and Business	Male
281	SONOVA HOLDING AG	AMPLIFON SPA	Italy	2 906 080,41	917 908,00	1,69	2008	226 199,00	100%	Yes	Franco Moscetti	1951	2004	Italy	N.a.	Male
282	GAZIT-GLOBE LTD	ATRIUM EUROPEAN REAL ESTATE LTD	United Kingdom	1 564 197,28	3 122 039,00	4,06	2015	218 692,00	14%	No	Josip Kardun	1974	2014	Germany	Law	Male
283	FRANCE TÉLÉCOM SA	SOCIETE NATIONALE DE TELECOMMUNICATIONS DU SENEGAL	Senegal	3 582 553,08	2 432 574,88	194,69	2009	209 000,00	10%	Yes	Cheikh Tidiane Mbaye	1956	1988	Senegal	Engineering	Male

284	SPORTS DIRECT INTERNATIONAL PLC	FINDEL PLC	United Kingdom	202 377,14	442 932,93	2,81	2016	204 773,90	83%	Yes	David Sugden	1952	2015	United Kingdom	Mathematics and Statistics	Male
285	CONTAGIOUS GAMING INC.	SPORTECH PLC	United Kingdom	229 253,31	248,57	0,93	2015	200 687,09	100%	Yes	Ian Penrose	1965	2005	United Kingdom	Economics and Business	Male
286	DEUTSCHE BANK AG	VIVANCO GRUPPE AG	Germany	10 191,15	40 542,86	28,42	2006	195 500,00	64%	No	Paul Jähn	1961	2004	Germany	Economics and Business	Male
287	TKH GROUP NV	NEDERLANDSCHE APPARATENFABRIEK NEDAP NV	Netherlands	297 860,91	113 782,00	31,71	2013	193 716,00	95%	Yes	Ruben M. Wegman	1967	2009	Netherlands	Engineering	Male
288	HARGREAVES SERVICES PLC	UK COAL PLC	United Kingdom	392 990,81	559 880,99	6,75	2010	190 752,32	100%	Yes	Jonathan Lloyd	1956	2007	United Kingdom	Economics and Business	Male
289	KINGFISHER PLC	MR BRICOLAGE SA	France	151 972,86	420 605,00	10,10	2014	187 275,00	68%	Yes	Jean-François Boucher	1970	1999	France	Economics and Business	Male
290	SUNCORP GROUP LTD	CLEARVIEW WEALTH LTD	Australia	373 298,80	1 499 338,12	0,35	2012	173 301,13	100%	Yes	Simon Swanson	1957	2010	Australia	Economics and Business	Male
291	WPP PLC	STW COMMUNICATIONS GROUP LTD	Australia	509 884,54	1 355 827,79	0,81	2015	163 465,76	76%	Yes	Michael Connaghan	1966	2008	Australia	Economics and Business	Male
292	SMARTONE TELECOMMUNICATIONS HOLDINGS LTD	I-CABLE COMMUNICATIONS LTD	China	167 423,38	325 537,88	0,07	2016	161 808,74	74%	Yes	Stephen Ng Tin-hoi	1953	1999	China	Economics and Business	Male
293	POLYTEC HOLDING AG	GRAMMER AG	Germany	654 347,40	704 553,00	9,24	2010	161 801,94	90%	Yes	Hartmut Mueller	1963	2010	Denmark	Engineering	Male
294	AXEL SPRINGER AG	TRADEDOUBLER AB	Sweden	21 734,31	52 843,24	5,33	2010	159 904,20	100%	Yes	Urban Gillström	1964	2009	Sweden	Engineering	Male
295	BRICORAMA SA	MR BRICOLAGE SA	France	151 972,86	420 605,00	12,90	2015	155 816,00	100%	Yes	Guy Beghin	1953	2015	France	Economics and Business	Male
296	POLYTEC HOLDING AG	GRAMMER AG	Germany	654 347,40	704 553,00	21,43	2008	152 198,00	90%	Yes	Rolf-Dieter Kempis	1953	2007	Germany	Engineering	Male
297	PICTON PROPERTY INCOME LTD	INVISTA FOUNDATION PROPERTY TRUST LTD	United Kingdom	372 936,48	570 450,12	0,42	2011	146 645,75	100%	Yes	Duncan Owen	1968	2006	United Kingdom	Engineering	Male
298	JYSKE BANK A/S	VESTJYSK BANK A/S	Denmark	327 347,89	2 941 936,49	1,27	2013	144 804,80	100%	Yes	Vagn Thorsager	1948	2012	Denmark	Economics and Business	Male
299	THOMAS COOK GROUP PLC	THOMAS COOK (INDIA) LTD	India	1 122 327,41	304 201,88	1,29	2008	143 059,44	56%	No	Madhavan Menon	1955	2006	India	Economics and Business	Male
300	ACKERMANS & VAN HAAREN NV	COMPAGNIE D'ENTREPRISES CFE SA	Belgium	3 080 772,38	1 559 927,90	45,10	2013	137 990,00	23%	No	Renaud Bentegeat	1953	2003	France	Law	Male
301	ATLANTIA SPA	STALEXPORT AUTOSTRADY SA	Polonia	246 366,46	100 473,24	0,81	2016	134 856,50	61%	No	Emil Wąsacz	1945	2011	Poland	Engineering	Male
302	SPAR NORD BANK A/S	NORDJYSKE BANK A/S	Denmark	296 007,21	2 757 243,42	16,90	2014	129 620,73	100%	Yes	Claus Andersen	1966	2010	Denmark	Economics and Business	Male
303	A2A SPA	ACSM-AGAM SPA	Italy	122 590,57	266 352,00	1,08	2015	128 720,00	100%	Yes	Paolo Soldani	1972	2015	Italy	Engineering	Male
304	ECKOH PLC	NETCALL PLC	United Kingdom	105 276,61	34 356,88	0,71	2015	123 322,61	100%	Yes	Henrik Peter Bang	1948	2004	Denmark	Economics and Business	Male
305	TAWA PLC	CHARLES TAYLOR CONSULTING PLC	United Kingdom	220 743,38	1 656 649,86	1,59	2012	119 598,67	100%	Yes	David Marock	1970	2011	United Kingdom	Economics and Business	Male
306	SPEEDY HIRE PLC	HSS HIRE GROUP PLC	United Kingdom	52 221,20	483 526,39	0,90	2015	113 388,89	100%	Yes	Chris Davis	1952	2006	United Kingdom	Economics and Business	Male

307	AUSTEVOLL SEAFOOD ASA	LEROY SEAFOOD GROUP ASA	Norway	2 883 683,81	1 109 961,88	1,25	2008	112 015,18	32%	No	Ole-Eirik Leroy	1959	1991	Norway	Economics and Business	Male
308	KONICA MINOLTA INC.	MOBOTIX AG	Germany	199 841,37	57 971,00	12,28	2015	110 073,00	65%	Yes	Klaus Gesmann	1967	2013	Germany	Engineering	Male
309	JASTRZEBSKA SPOLKA WEGLOWA SA	NEW WORLD RESOURCES PLC	United Kingdom	18 136,42	319 461,00	0,91	2014	110 046,64	100%	Yes	Gareth Penny	1962	2012	South Africa	Economics and Business	Male
310	ARQUES INDUSTRIES AG	AURELIUS AG	Germany	1 729 167,63	557 634,00	6,03	2008	103 104,00	100%	Yes	Dirk Markus	1971	2006	Germany	Economics and Business	Male
311	BAYWA AG	TURNERS AND GROWERS LTD	New Zealand	242 937,94	472 665,28	0,97	2011	98 517,99	73%	No	Jeffery Wesley	1947	2005	Australia	N.a.	Male
312	HEADER COMPRESSION SWEDEN HOLDING AB	STENDORREN FASTIGHETER AB	Sweden	180 133,59	274 170,19	7,22	2014	92 441,90	100%	Yes	Aniruddha Kulkarni	1973	2013	India	Engineering	Male
313	AKTIESELSKABET BORGESTAD ASA	WILSON ASA	Norway	56 682,37	106 921,00	2,43	2006	91 409,00	73%	Yes	Øyvind Fjerde	1962	2000	Norway	Economics and Business	Male
314	SPAREBANK 1 SR-BANK ASA	SANDNES SPAREBANK	Norway	127 389,84	2 022 177,62	11,45	2014	88 263,11	100%	Yes	Trine Karin Lise Stangeland	1973	2005	Norway	Economics and Business	Female
315	DEMIRE DEUTSCHE MITTELSTAND REAL ESTATE AG	FAIR VALUE REIT-AG	Germany	117 045,13	117 401,01	7,86	2015	87 711,00	72%	No	Frank Schaich	1959	2007	Germany	N.a.	Male
316	HIKMA PHARMACEUTICALS PLC	PROMOPHARM SA	Morocco	125 124,39	39 982,25	73,22	2011	83 235,35	64%	No	Mohamed Kamal Mernissi	1942	1985	Morocco	Pharmacy	Male
317	AF AB	ETTEPLAN OYJ	Finland	192 722,21	118 036,00	4,20	2015	81 727,00	100%	Yes	Juha Näkki	1973	2012	Finland	Engineering	Male
318	AMADEUS IT HOLDING SA	EFAO AG	Germany	145 917,87	25 227,68	13,05	2014	79 471,00	100%	No	Louis Arnitz	1956	1977	Germany	Economics and Business	Male
319	AXEL SPRINGER AG	AUFEMININ.COM SA	France	362 446,95	155 594,00	24,40	2007	76 686,00	27%	No	Anne-Sophie Pastel	1969	1999	France	Engineering	Female
320	GS HOLDINGS CORPORATION	SSANGYONG CORPORATION	South Korea	179 679,74	866 872,43	3,08	2009	75 590,15	70%	Yes	Lee Yoo-il	1943	2009	South Korea	Engineering	Male
321	POLO RESOURCES LTD	GCM RESOURCES PLC	United Kingdom	27 313,19	45 988,86	1,77	2008	75 429,29	70%	Yes	Steve Bywater	1952	2006	Australia	Engineering	Male
322	SVENSKA CELLULOSA AB	ROTTNEROS AB	Sweden	114 815,05	123 423,69	0,28	2014	64 087,64	100%	Yes	Carl-Johan Jonsson	1966	2013	Sweden	Economics and Business	Male
323	AXFOOD AB	MATSE HOLDING AB	Sweden	19 748,84	35 587,79	0,91	2016	56 800,95	100%	Yes	Måns Danielson	1964	2011	Sweden	N.a.	Male
324	CANCOM SE	PIRONET NDH AG	Germany	59 818,59	38 814,00	3,63	2013	56 693,00	86%	Yes	Felix Hoeger	1974	1995	Germany	Engineering	Male
325	CONSORT MEDICAL PLC	ADVANCED MEDICAL SOLUTIONS GROUP PLC	United Kingdom	761 240,97	190 080,45	0,31	2010	54 590,17	100%	Yes	Donald W. Evans	1949	2000	Australia	Engineering	Male
326	PRUDENTIAL PLC	PACIFIC & ORIENT BHD	Malasya	70 169,40	81 652,46	0,13	2010	49 574,10	100%	Yes	Thye Seng Chan	1957	1995	Malaysia	Law	Male
327	ACCIONA SA	MOSTOSTAL WARSZAWA SA	Polonia	22 226,90	203 132,52	4,12	2006	49 000,00	50%	No	Juan Ignacio Entrecanales Franco	1965	2001	Spain	Engineering	Male
328	ADLER REAL ESTATE AG	ESTAVIS AG	Germany	210 162,44	169 509,00	2,00	2014	47 453,00	93%	No	Thomas Ernst	1967	2002	Switzerland	Engineering	Male

329	SANTHERA PHARMACEUTICALS HOLDING AG	NEWRON PHARMACEUTICALS SPA	Italy	192 987,41	54 747,32	3,96	2011	42 655,99	100%	Yes	Luca Benatti	1961	1998	Italy	Biology	Male
330	VIDEOCON INDUSTRIES LTD	DR DATSONS LABS LTD	India	7 063,77	152 402,17	0,86	2014	41 934,21	100%	Yes	Kannan Vishwanath	1975	2013	India	Engineering	Male
331	AVANQUEST SOFTWARE SA	EMME SA	France	287 903,56	129 906,08	13,75	2007	40 817,00	100%	No	Olivier Wright	1961	1996	France	Economics and Business	Male
332	CARPETRIGHT PLC	TOPPS TILES PLC	United Kingdom	164 676,78	112 654,12	0,73	2009	40 061,70	100%	Yes	Matthew Williams	1972	2007	United Kingdom	Psichology	Male
333	NEOPOST SA	FRANCOTYP-POSTALIA HOLDING AG	Germany	75 255,46	116 671,00	0,87	2009	40 000,00	100%	Yes	Hans Szymanski	1963	2009	Germany	Economics and Business	Male
334	STORA ENSO OYJ	SUPARMA TBK, PT	Indonesia	29 848,89	145 517,00	0,02	2012	39 966,78	55%	Yes	Welly Welly	1949	1994	Indonesia	N.a.	Male
335	TIETO OYJ	SYGNITY SA	Polonia	8 546,43	95 402,86	3,63	2009	37 668,33	100%	Yes	Piotr Kardach	1958	2007	Poland	Engineering	Male
336	CANCOM SE	PIRONET NDH AG	Germany	59 818,59	38 814,00	3,63	2013	37 591,00	54%	No	Felix Hoeger	1974	1995	Germany	Engineering	Male
337	PRODWARE SA	QURIUS NV	Netherlands	4 073,46	986,00	111,20	2011	34 938,00	91%	Yes	Frank van der Woude	1967	2006	Netherlands	Economics and Business	Male
338	NOVARTIS AG	SANTHERA PHARMACEUTICALS HOLDING AG	Switzerland	193 042,04	93 854,98	3,15	2014	34 697,55	100%	Yes	Thomas Meier	1962	2011	Switzerland	Medicine	Male
339	FOXCONN TECHNOLOGY CO., LTD	S&T AG	Austria	97 718,50	266 829,39	9,12	2016	33 667,00	71%	Yes	Hannes Niederhauser	1962	2011	Austria	Engineering	Male
340	TOPPS TILES PLC	NORCROS PLC	United Kingdom	155 506,59	424 861,80	1,42	2009	33 146,07	100%	Yes	Joe Matthews	1945	1996	United Kingdom	Economics and Business	Male
341	DPA GROUP NV	ICT AUTOMATISERING NV	Netherlands	126 864,33	81 575,00	3,30	2013	32 002,00	80%	Yes	Jos Blejie	1959	2013	United Kingdom	Economics and Business	Male
342	LIONGOLD CORPORATION LTD	MINERA IRL LTD	United Kingdom	16 381,63	141 651,01	0,15	2013	29 476,43	100%	Yes	Courtney Charles Chamberlain	1944	2000	United States of America	Engineering	Male
343	TIETO OYJ	NIXU OYJ	Finland	79 653,18	34 948,58	4,29	2016	27 871,00	100%	Yes	Petri Kairinen	1977	2014	Finland	Economics and Business	Male
344	ARCTIC PAPER SA	ROTTNEROS AB	Sweden	114 815,05	123 423,69	0,23	2012	22 825,12	54%	No	Ole Terland	1958	2008	Sweden	Engineering	Male
345	AFH FINANCIAL GROUP PLC	LIGHTHOUSE GROUP PLC	United Kingdom	28 054,50	27 487,18	0,14	2016	22 090,33	100%	Yes	Malcolm Streatfield	1957	2003	United Kingdom	N.a.	Male
346	ECKERT & ZIEGLER STRAHLEN UND MEDIZINTECHNIK AG	INTERNATIONAL BRACHYTHERAPY SA	Belgium	20 972,33	50 673,38	25,00	2009	21 993,00	34%	No	John L. Carden	1948	1996	Belgium	Chemestry	Male
347	SEADRILL LTD	TRANSOCEAN LTD	Switzerland	3 484 045,64	18 685 906,20	39,60	2010	20 916,19	100%	Yes	Steven L. Newman	1964	2010	United States of America	Engineering	Male
348	LANXESS AG	GWALIOR CHEMICAL INDUSTRIES LTD	India	39 303,94	57 049,82	0,59	2009	20 391,29	100%	Yes	Ashwin Kumar Kothari	1941	1984	India	Chemestry	Male
349	FORNIX BIOSCIENCES NV	SNOWWORLD NV	Netherlands	30 359,26	1 407,00	8,00	2013	20 000,00	100%	No	Jim Hendricks	1948	1996	Netherlands	Social Sciences	Male
350	BARTRONICS INDIA LTD	INTERCEDE GROUP PLC	United Kingdom	25 424,49	10 326,80	0,34	2008	19 784,19	100%	Yes	Richard Parris	1956	1992	United Kingdom	Engineering	Male

351	EUROFINS SCIENTIFIC SE	VIMTA LABS LTD	India	29 507,10	17 984,21	0,59	2014	18 413,89	37%	Yes	Harita Vasireddi	1973	2013	India	Pharmacy	Female
352	PROLOGUE SA	O2I SA	France	12 297,51	22 594,67	2,15	2014	16 750,00	100%	Yes	Jean-Thomas Olano	1968	2004	France	Economics and Business	Male
353	JYSKE BANK A/S	OSTJYDSK BANK A/S	Denmark	11 484,12	398 807,25	4,15	2014	16 065,45	100%	Yes	Max Hovedskov	1963	2013	Denmark	Economics and Business	Male
354	PZ CORMAY SA	ORPHEE SA	Switzerland	14 871,41	34 340,07	0,29	2016	15 570,11	100%	Yes	Janusz Płocica	1967	2015	Poland	Economics and Business	Male
355	MICROGEN PLC	ELEKTRON TECHNOLOGY PLC	United Kingdom	22 426,95	10 171,81	0,09	2014	14 965,49	100%	Yes	John Frederick Wilson	1976	2010	United Kingdom	Engineering	Male
356	ALTARÉA SA	FROMAGERIES PAUL RENARD SA	France	481 401,45	848 997,00	150,00	2007	14 725,00	100%	No	Alex Bongrain	1952	2003	France	Engineering	Male
357	RENOLD PLC	LG BALAKRISHNAN & BROS LTD	India	140 412,06	118 886,37	1,76	2008	14 672,95	75%	No	B. Vijayakumar	1952	1986	India	Economics and Business	Male
358	FYNSKE BANK A/S	TOTALBANKEN A/S	Denmark	23 882,15	394 183,41	5,09	2014	14 329,89	100%	Yes	Ivan Moelgaard Sloek	1966	2003	Denmark	Economics and Business	Male
359	CENTRICA PLC	CLUFF NATURAL RESOURCES PLC	United Kingdom	9 610,57	2 875,78	0,01	2016	12 814,87	100%	Yes	John Gordon Cluff	1938	2012	United Kingdom	N.a.	Male
360	BONHEUR ASA	NHST MEDIA GROUP AS	Norway	37 755,90	57 671,75	50,81	2014	11 087,43	18%	No	Gunnar Bjørkavåg	1960	2000	Norway	Economics and Business	Male
361	BMR GROUP PLC	METAL TIGER PLC	United Kingdom	634,34	2 202,20	0,01	2016	10 518,26	100%	Yes	Paul Johnson	1969	2016	United Kingdom	Economics and Business	Male
362	PUNCH INTERNATIONAL SA/NV	ACCENTIS NV	Belgium	48 934,97	79 424,50	0,01	2013	8 305,00	52%	Yes	Bruno Holthof	1961	2011	Belgium	Economics and Business	Male
363	COMS PLC	PINNACLE TECHNOLOGY GROUP PLC	United Kingdom	15 858,16	8 791,47	0,30	2013	7 939,19	100%	Yes	Alan Bonner	1965	2007	United Kingdom	N.a.	Male
364	VODAFONE GROUP PLC	OUTSOURCERY PLC	United Kingdom	16 405,39	11 753,88	0,19	2016	7 327,14	100%	Yes	Simon Newton	1966	2009	United Kingdom	Economics and Business	Male
365	DEUTSCHE POST AG	DOCDATA NV	Netherlands	3 542,00	619,00	16,32	2014	5 943,00	100%	Yes	Michiel F. P. M. Alting von Geusau	1963	2002	Netherlands	Economics and Business	Male
366	INNOVATEC SPA	GRUPPO GREEN POWER SPA	Italy	9 039,34	11 339,15	6,00	2015	5 010,00	51%	Yes	David Barzazi	1972	2010	Italy	Economics and Business	Male
367	DEUTSCHE BALATON AG	PANDATEL AG	Germany	2 140,08	635,00	0,91	2012	4 904,00	62%	No	Manfred Wissmann	1945	2007	Germany	Law	Male
368	HIGHLIGHT COMMUNICATIONS AG	ESCOR CASINOS & ENTERTAINMENT SA	Switzerland	24 346,38	41 991,10	15,09	2011	4 729,05	27%	No	Fredy Haas	1952	2011	Switzerland	Economics and Business	Male
369	LANKEM CEYLON PLC	CW MACKIE PLC	Sri Lanka	12 135,19	24 763,92	0,18	2010	4 421,94	57%	No	William T. Ellawala	1942	2002	Sri Lanka	Economics and Business	Male
370	CADOGAN PETROLEUM PLC	ASCENT RESOURCES PLC	United Kingdom	21 068,04	50 257,23	0,01	2016	3 880,02	100%	Yes	Colin Hutchinson	1976	2015	United Kingdom	Economics and Business	Male
371	ENVIRONMENTAL RESOURCES INVESTMENT PLC	CEYLON LEATHER PRODUCTS PLC	Sri Lanka	11 395,86	18 579,19	0,54	2010	2 225,69	21%	No	Sitendra Senaratne	1960	2004	Sri Lanka	Economics and Business	Male
372	SOCIETE CENTRALE DES BOIS ET SCIERIES DE LA MANCHE SA	FONCIERE VOLTA SA	France	44 843,68	86 059,12	6,49	2007	2 068,00	71%	No	Jean Edouard Mazery	1975	2006	France	Economics and Business	Male
373	VALUE8 NV	WITTE MOLEN NV	Netherlands	3 831,95	3 562,00	5,00	2011	1 980,00	51%	No	F.A.M.J. Faas	1956	2008	Netherlands	N.a.	Male

374	VALUE8 NV	1STE NEDERLANDSCHE ONROERENDGOED MAATSCHAPPIJ	Netherlands	18 096,45	25,27	1,90	2013	1 301,00	51%	No	Peter Paul de Vries	1967	2008	Netherlands	Economics and Business	Male
375	HAYLEYS PLC	ALUFAB PLC	Sri Lanka	2 081,30	2 853,14	0,10	2014	1 018,82	61%	No	Sarojin Johann Wijesinghe	1964	2014	Sri Lanka	Economics and Business	Male
376	VALUE8 NV	FORNIX BIOSCIENCES NV	Netherlands	30 359,26	1 407,00	15,65	2012	791,00	15%	No	Cess Bergman	1956	2003	Netherlands	Economics and Business	Male
377	EUROINVESTOR.COM A/S	VICTORIA PROPERTIES A/S	Denmark	1 885,82	1 676,18	0,51	2016	175,15	65%	No	Frank Hansen	1965	2013	Denmark	Law	Male
378	ROYAL DUTCH SHELL PLC	MAKPETROL AD	Macedonia	48 759,46	122 169,15	430,76	2011	39,99	100%	Yes	Andreja Josifovski	1952	2004	Macedonia	N.a.	Male

Annex 2

The following table shows the number of observations in terms of CEOs age and tenure that resisted or did not resisted the takeover attempt.

Scenario 1				Scenario 2				Scenario 3			
CEOs Age (Intervals)	**Resistance**	**Number of Observations**	**Weight**	**CEOs Age (Intervals)**	**Resistance**	**Number of Observations**	**Weight**	**CEOs Age (Intervals)**	**Resistance**	**Number of Observations**	**Weight**
Between 25 and 40	Yes	9	64,29%	Between 25 and 40	Yes	8	61,54%	Between 25 and 40	Yes	6	66,67%
	No	5	35,71%		No	5	38,46%		No	3	33,33%
	Total	14			Total	13			Total	9	
Between 41 and 44	Yes	30	85,71%	Between 41 and 44	Yes	28	84,85%	Between 41 and 44	Yes	16	88,89%
	No	5	14,29%		No	5	15,15%		No	2	11,11%
	Total	35			Total	33			Total	18	
Between 45 and 48	Yes	45	90,00%	Between 45 and 48	Yes	67	91,78%	Between 45 and 48	Yes	48	92,31%
	No	5	10,00%		No	6	8,22%		No	4	7,69%
	Total	50			Total	73			Total	52	
Between 49 and 52	Yes	62	84,93%	Between 49 and 52	Yes	67	87,01%	Between 49 and 52	Yes	53	88,33%
	No	11	15,07%		No	10	12,99%		No	7	11,67%
	Total	73			Total	77			Total	60	
Between 53 and 56	Yes	58	82,86%	Between 53 and 56	Yes	55	85,94%	Between 53 and 56	Yes	40	86,96%
	No	12	17,14%		No	9	14,06%		No	6	13,04%
	Total	70			Total	64			Total	46	
Between 57 and 60	Yes	47	85,45%	Between 57 and 60	Yes	41	91,11%	Between 57 and 60	Yes	23	88,46%
	No	8	14,55%		No	4	8,89%		No	3	11,54%
	Total	55			Total	45			Total	26	
Between 61 and 64	Yes	42	91,30%	Between 61 and 64	Yes	15	83,33%	Between 61 and 64	Yes	10	83,33%
	No	4	8,70%		No	3	16,67%		No	2	16,67%
	Total	46			Total	18			Total	12	
More then 65	Yes	28	80,00%	More then 65	Yes	8	61,54%	More then 65	Yes	6	66,67%
	No	7	20,00%		No	5	38,46%		No	3	33,33%
	Total	35			Total	13			Total	9	

Scenario 1				Scenario 2				Scenario 3			
CEOs Tenure (Intervals)	**Resistance**	**Number of Observations**	**Weight**	**CEOs Tenure (Intervals)**	**Resistance**	**Number of Observations**	**Weight**	**CEOs Tenure (Intervals)**	**Resistance**	**Number of Observations**	**Weight**
Between 0 and 5	Yes	192	86,10%	Between 0 and 5	Yes	169	88,48%	Between 0 and 5	Yes	113	89,68%
	No	31	13,90%		No	22	11,52%		No	13	10,32%
	Total	223			Total	191			Total	126	
Between 6 and 10	Yes	68	87,18%	Between 6 and 10	Yes	65	90,28%	Between 6 and 10	Yes	49	92,45%
	No	10	12,82%		No	7	9,72%		No	4	7,55%
	Total	78			Total	72			Total	53	
Between 11 and 15	Yes	31	77,50%	Between 11 and 15	Yes	29	78,38%	Between 11 and 15	Yes	22	78,57%
	No	9	22,50%		No	8	21,62%		No	6	21,43%
	Total	40			Total	37			Total	28	
Between 16 and 20	Yes	19	82,61%	Between 16 and 20	Yes	13	76,47%	Between 16 and 20	Yes	8	72,73%
	No	4	17,39%		No	4	23,53%		No	3	27,27%
	Total	23			Total	17			Total	11	
More then 20	Yes	11	78,57%	More then 20	Yes	5	83,33%	More then 20	Yes	4	80,00%
	No	3	21,43%		No	1	16,67%		No	1	20,00%
	Total	14			Total	6			Total	5	

Annex 3

The following table shows the number of observations in terms of CEOs nationality/culture that resisted or did not resisted the takeover attempt.

Scenario 1				Scenario 2				Scenario 3			
CEO's Age (Intervals)	**Resistance**	**Number of Observations**	**Weight**	**CEO's Age (Intervals)**	**Resistance**	**Number of Observations**	**Weight**	**CEO's Age (Intervals)**	**Resistance**	**Number of Observations**	**Weight**
African	Yes	7	100,00%	African	Yes	3	100,00%	African	Yes	0	0,00%
	No	0	0,00%		No	0	0,00%		No	0	0,00%
	Total	7			Total	3			Total	0	
Anglo American	Yes	94	97,92%	Anglo American	Yes	81	100,00%	Anglo American	Yes	62	100,00%
	No	2	2,08%		No	0	0,00%		No	0	0,00%
	Total	96			Total	81			Total	62	
Arabian	Yes	3	60,00%	Arabian	Yes	2	100,00%	Arabian	Yes	0	0,00%
	No	2	40,00%		No	0	0,00%		No	0	0,00%
	Total	5			Total	2			Total	0	
Asian	Yes	16	64,00%	Asian	Yes	1	50,00%	Asian	Yes	0	0,00%
	No	9	36,00%		No	1	50,00%		No	0	0,00%
	Total	25			Total	2			Total	0	
Balcans and Slavics	Yes	10	76,92%	Balcans and Slavics	Yes	10	76,92%	Balcans and Slavics	Yes	4	66,67%
	No	3	23,08%		No	3	23,08%		No	2	33,33%
	Total	13			Total	13			Total	6	
Francophone	Yes	42	80,77%	Francophone	Yes	42	84,00%	Francophone	Yes	30	93,75%
	No	10	19,23%		No	8	16,00%		No	2	6,25%
	Total	52			Total	50			Total	32	
German	Yes	70	83,33%	German	Yes	70	83,33%	German	Yes	48	80,00%
	No	14	16,67%		No	14	16,67%		No	12	20,00%
	Total	84			Total	84			Total	60	
Latin	Yes	43	84,31%	Latin	Yes	38	82,61%	Latin	Yes	19	82,61%
	No	8	15,69%		No	8	17,39%		No	4	17,39%
	Total	51			Total	46			Total	23	
Scandinavian	Yes	36	80,00%	Scandinavian	Yes	34	80,95%	Scandinavian	Yes	28	82,35%
	No	9	20,00%		No	8	19,05%		No	6	17,65%
	Total	45			Total	42			Total	34	

Other nationalities	Yes	0	0,00%	Other nationalities	Yes	0	0,00%	Other nationalities	Yes	5	83,33%
	No	0	0,00%		No	0	0,00%		No	1	16,67%
	Total	0			Total	0			Total	6	

Annex 4

The following table shows the number of observations in terms of CEOs academic background that resisted or did not resisted the takeover attempt.

Scenario 1				Scenario 2				Scenario 3			
CEO's Age (Intervals)	**Resistance**	**Number of Observations**	**Weight**	**CEO's Age (Intervals)**	**Resistance**	**Number of Observations**	**Weight**	**CEO's Age (Intervals)**	**Resistance**	**Number of Observations**	**Weight**
Economics and Business	Yes	155	85,16%	Economics and Business	Yes	141	89,24%	Economics and Business	Yes	105	90,52%
	No	27	14,84%		No	17	10,76%		No	11	9,48%
	Total	182			Total	158			Total	116	
Engineering	Yes	96	86,49%	Engineering	Yes	80	86,96%	Engineering	Yes	49	89,09%
	No	15	13,51%		No	12	13,04%		No	6	10,91%
	Total	111			Total	92			Total	55	
Law	Yes	19	73,08%	Law	Yes	18	72,00%	Law	Yes	11	64,71%
	No	7	26,92%		No	7	28,00%		No	6	35,29%
	Total	26			Total	25			Total	17	
Mathematics and Statistics	Yes	6	100,00%	Mathematics and Statistics	Yes	5	100,00%	Mathematics and Statistics	Yes	5	100,00%
	No	0	0,00%		No	0	0,00%		No	0	0,00%
	Total	6			Total	5			Total	5	
Medicine and related	Yes	7	87,50%	Medicine and related	Yes	6	100,00%	Medicine and related	Yes	5	100,00%
	No	1	12,50%		No	0	0,00%		No	0	0,00%
	Total	8			Total	6			Total	5	
Natural Sciences	Yes	17	94,44%	Natural Sciences	Yes	13	92,86%	Natural Sciences	Yes	9	100,00%
	No	1	5,56%		No	1	7,14%		No	0	0,00%
	Total	18			Total	14			Total	9	
Social Sciences	Yes	3	75,00%	Social Sciences	Yes	3	75,00%	Social Sciences	Yes	2	66,67%
	No	1	25,00%		No	1	25,00%		No	1	33,33%
	Total	4			Total	4			Total	3	
No qualifications	Yes	18	78,26%	No qualifications	Yes	15	78,95%	No qualifications	Yes	10	76,92%
	No	5	21,74%		No	4	21,05%		No	3	23,08%
	Total	23			Total	19			Total	13	

Annex 5

The following table shows the Correlations for the variables in "Scenario 1".

Variables	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]
[1] AGE	1																							
[2] TEN	-.380	1																						
[3] ACB (1)	-.003	.06	1																					
[4] ACB (2)	.023	.05	.803	1																				
[5] ACB (3)	-.128	.137	.644	.592	1																			
[6] ACB (4)	.000	.000	.000	.000	.000	1																		
[7] ACB (5)	-.012	-.01	.408	.419	.292	.000	1																	
[8] ACB (6)	-.089	-.05	.361	.346	.260	.000	.177	1																
[9] ACB (7)	-.040	.05	.460	.410	.352	.000	.190	.174	1															
[10] NAT (1)	.000	.000	.000	.000	.000	.000	.000	.000	.000	1														
[11] NAT (2)	.004	-.137	-.073	-.202	-.081	.000	-.362	-.025	-.009	.000	1													
[12] NAT (3)	-.005	-.051	-.078	-.056	-.080	.000	-.096	-.032	.021	.000	.400	1												
[13] NAT (4)	-.036	.024	-.133	-.202	-.093	.000	-.033	-.057	.001	.000	.377	.549	1											
[14] NAT (5)	.095	-.111	-.157	-.194	-.128	.000	-.050	-.140	-.024	.000	.436	.643	.615	1										
[15] NAT (6)	.040	-.059	-.087	-.125	-.143	.000	-.041	-.023	-.079	.000	.452	.697	.636	.723	1									
[16] NAT (7)	.098	-.057	.034	-.026	-.072	.000	.013	-.001	.069	.000	.382	.625	.565	.628	.679	1								
[17] NAT (8)	.069	-.005	-.115	-.141	-.185	.000	-.052	-.040	.003	.000	.403	.642	.585	.662	.725	.626	1							
[18] GEN	-.164	.074	.057	-.004	.055	.000	.268	-.024	.055	.000	-.087	.007	.157	.082	.005	-.004	-.002	1						
[19] DEAL_VALUE	-.048	.030	-.091	-.104	-.076	.000	-.026	-.036	-.100	.000	-.009	.061	.067	.039	.057	-.035	.069	.052	1					
[20] STOCK_ACQUIRED	.201	-.188	-.064	.104	-.073	.000	.062	.037	-.121	.000	-.052	.127	-.097	.054	-.012	.126	-.016	-.298	-.180	1				
[21] MARKET_CAP	.007	-.022	-.071	-.160	-.030	.000	-.023	-.024	-.061	.000	.122	-.063	.044	.068	-.007	.060	-.001	-.084	-.446	.182	1			
[22] TOTAL_ASSETS	-.127	.040	.173	.258	.169	.000	.114	.115	.078	.000	-.093	.005	-.205	-.091	-.044	-.225	-.051	.008	-.135	-.001	-.296	1		
[23] STOCK_PRICE	-.046	-.034	.039	.085	.037	.000	-.041	.046	.058	.000	-.139	.067	-.156	-.185	-.093	.018	-.062	-.042	-.093	.079	-.195	.085	1	
[24] RATIO Q	-.003	.000	.016	.018	.014	.000	.008	.009	.012	.000	.019	.037	.031	.030	.036	.032	.034	.008	.003	-.015	-.014	.014	.003	1

Annex 6

Extended results of our Binomial Regression Model and Classification Tables.

Target Firms' CEOs Age and Tenure as linear variables

Independent variable	Scenario 1							Scenario 2							Scenario 3						
	B	S.E.	Wald	Sig.	Exp. (B)	95% C.I. for Exp. (B)		B	S.E.	Wald	Sig	Exp. (B)	95% C.I. for Exp. (B)		B	S.E.	Wald	Sig	Exp (B)	95% C.I. for Exp. (B)	
						Lower	Upper						Lower	Upper						Lower	Upper
AGE	.046	.028	2.687	.101	1.047	.991	1.105	.051	.033	2.359	.125	1.052	.986	1.123	.023	.044	.284	.594	1.023	.940	1.115
TEN	-.047	.032	2.157	.142	.954	.896	1.016	-.068	.039	3.149	.076	.34	.866	1.007	-.072	.047	2.274	.132	.931	.848	1.022
ACB			7.998	.333						4.972	.663						2.052	.957			
ACB [1]	.331	.817	.164	.685	1.392	.281	6.904	.389	.986	.156	.693	1.476	.213	10.202	1.074	1.178	.831	.362	2.928	.291	29.487
ACB [2]	1.234	.895	1.902	.168	3.435	.595	19.842	.768	.997	.593	.441	2.155	.306	15.195	1.461	1.313	1.237	.266	4.310	.328	56.546
ACB [3]	-.184	1.083	.029	.865	.832	.100	6.951	-.518	1.186	.191	.662	.595	.058	6,087	.235	1.447	.026	.871	1.265	.074	21.568
ACB [4]	19.472	14101.462	.000	.999	286108549	.000	.	18.377	15265.746	.000	.999	95706562.0	.000	.	18.268	14368.677	.000	.999	85827009.5	.000	.
ACB [5]	1.855	1.769	1.100	.294	6.393	.200	204.742	17.868	14980.025	.000	.999	57557206.2	.000	.	18.440	15420.938	.000	.999	102000578	.000	.
ACB [6]	1.873	1.962	.911	.340	6.505	.139	304.273	.832	2.194	.144	.704	2298	.031	169.215	16.614	10351.700	.000	.999	16420488.3	.000	.
ACB [7]	-1.983	1.550	1.637	.201	.138	.007	2.871	-2.247	1.749	1.650	.199	.106	.003	3.259	-16.883	4084.718	.000	.997	.000	.000	.
NAT			8.635	.374						4.485	.774						3.542	.738			
NAT [1]	20.658	12453.992	.000	.999	937198876	.000	.	-.600	23041.139	.000	1.000	.549	.000	.	12.754	17898.887	.000	.999	34818.173	.000	.
NAT [2]	-3.116	1.653	3.551	.059	.044	.002	1.133	-.197	28676.774	.000	1.000	.821	.000	.	-19.129	16977.698	.000	.999	.000	.000	.
NAT [3]	-1.708	.988	2.986	.084	.181	.026	1.258	-20.494	3863.509	.000	.996	.000	.000	.	-16.751	16977.698	.000	.999	.000	.000	.
NAT [4]	-3.044	1.134	7.200	.007	.048	.005	.440	-19.785	3863.509	.000	.996	.000	.000	.	-18.583	16977.698	.000	.999	.000	.000	.
NAT [5]	-1.842	1.001	3.384	.066	.159	.022	1.128	-18.055	3863.509	.000	.996	.000	.000	.	-17.590	16977.698	.000	.999	.000	.000	.
NAT [6]	-1.688	.895	3.559	.059	.185	.032	1.068	-18.553	3863.509	.000	.996	.000	.000	.	-18.201	16977.698	.000	.999	.000	.000	.
NAT [7]	1.223	1.025	1.422	.233	.294	.039	2.197	-18.067	3863.509	.000	.996	.000	.000	.	-	-	-	-	-	-	-
NAT [8]	-1.615	.988	2.673	.102	.199	.029	1.379	-18.544	3863.509	.000	.996	.000	.000	.	-	-	-	-	-	-	-
GEN [1]	-2.352	1.187	3.926	.048	.095	.009	.975	-1.522	1.225	1.543	.214	.218	.020	2.409	1.152	1,413	.665	.415	3.164	.199	50.434
DEAL_VALUE	.000	.000	.018	.894	1,000	1.000	1.000	.000	.000	.308	.579	1.000	1.000	1.000	.000	.000	.000	.995	1,000	1.000	1.000
STOCK_ACQUIRED	8169.00	1.117	53.460	.000	3529.467	395.096	31529.405	8.024	1.288	38.813	.000	3052.974	244.583	38108.353	7.015	1.726	16.524	.000	1112.707	37.805	32750.393
MARKET_CAP	.000	.000	1.431	.232	1.000	1.000	1.000	.000	.000	1.487	.223	1.000	1.000	1.000	.000	.000	.116	.734	1.000	1.000	1.000
TOTAL_ASSETS	.000	.000	.411	.521	1.000	1.000	1.000	.000	.000	.237	.627	1.000	1.000	1.000	.000	.000	.850	.356	1.000	1.000	1.000
STOCK_PRICE	.005	.007	.501	.479	1.005	.991	1.020	.003	.007	.187	.665	1.003	.989	1.017	.027	.029	.849	.357	1.027	.970	1.087
RATIO Q	.000	.001	.004	.947	1.000	.998	1.003	.000	.001	.004	.948	1.000	.999	1.001	.000	.001	.002	.964	1.000	.999	1.001
Constant	-4.272	2.137	3.998	.046	.014			11.293	3863.509	.000	.998	150743.090			11.315	16977.699	.000	.999	82082.71		

			Scenario 1			Scenario 2			Scenario 3		
			Predicted			Predicted			Predicted		
			TAR		Percentage Correct	TAR		Percentage Correct	TAR		Percentage Correct
			.00	1.00		.00	1.00		.00	1.00	
Observed	TAR	.00	37 (0)	20 (57)	64,9 (,0)	28 (0)	14 (42)	66,7 (,0)	17 (0)	9 (26)	65,4 (,0)
		1.00	9 (0)	312 (321)	97,2 (100,0)	7 (0)	274 (281)	97,5 (100,0)	3 (0)	193 (196)	98,5 (100,0)
	Overall Percentage				92,3 (84,9)			93,5 (87,0)			94,6 (88,3)

Target Firms' CEOs Age and Tenure as five-year period groups

Independent variable	Scenario 1							Scenario 2							Scenario 3						
	B	S.E.	Wald	Sig.	Exp (B)	95% C.I. for Exp. (B)		B	S.E.	Wald	Sig	Exp (B)	95% C.I. for Exp. (B)		B	S.E.	Wald	Sig	Exp (B)	95% C.I. for Exp. (B)	
						Lower	Upper						Lower	Upper						Lower	Upper
AGE			6.680	.351						5.923	.432						5.025	.541			
AGE [1]	2.538	1,154	4.834	.028	12.654	1.317	121.580	2.180	1.267	2.961	.085	8.848	.739	106.009	3.913	2.457	2.537	.111	50.060	.406	6177.064
AGE [2]	1.654	.994	2.770	.096	5.226	.746	36.629	1.797	1.144	2.465	.116	6.031	.640	56.817	3.293	1.858	3.139	.076	26.915	.705	1027.836
AGE [3]	1.574	.972	2.622	.105	4.824	.718	32.401	1.087	1.113	.953	.329	2.965	.334	26.281	2.248	1.816	1.532	.216	9.466	.207	332.503
AGE [4]	2.044	1.056	3.749	.053	7.722	.975	61.153	2.131	1.211	3.098	.078	8.427	.785	90.471	3.908	2.186	3.195	.074	49.807	.686	3617.100
AGE [5]	2.666	1.206	4.887	.027	14.377	1.353	152.791	2.989	1.449	4.428	.039	19.808	1.158	338.954	5.959	3.683	2.618	.106	387.357	.284	528448.782
AGE [6]	2.087	1.236	2.852	.091	8.064	.715	90.945	2.058	1.527	1.816	.178	7.829	.393	152.130	3.059	2.176	1.975	.160	21.300	.299	1516.285
TEN			5.916	.206						5.937	.204						6.448	.168			
TEN [1]	-.140	.703	.040	.842	.869	.219	3.447	.221	.723	.094	.759	1.248	.303	5.142	-1.044	1.302	.643	.423	.352	.027	4.515
TEN [2]	-1.122	.678	2.736	.098	.326	.086	1.231	-1.410	.755	3.489	.062	.244	.056	1.072	-2.095	1.039	4.066	.044	.123	.016	.943
TEN [3]	1.103	1.040	1.124	.289	3.013	.392	23.152	.270	1.172	.053	.818	1.310	.132	13.025	2.643	2.567	1.060	.303	14.058	.092	2154.431
TEN [4]	-1.673	1.047	2.551	.110	.188	.024	1.462	-2.371	1.476	2.581	.108	.093	.005	1.685	-4.250	2.251	3.565	.059	.014	.000	1.175
ACB			12.081	.098						7.395	.389						2.184	.949			
ACB [1]	.312	.847	.135	.713	1.366	.260	7.185	-.151	1.130	.018	.894	1.163	.127	10.665	.716	1.328	.291	.590	2.047	.152	27.628
ACB [2]	1.432	.930	2.373	.123	4.189	.677	25.917	.877	1.110	.624	.430	2.404	.273	21.180	1.515	1.477	1.053	.305	4.551	.252	82.268
ACB [3]	.173	1.126	.023	.878	1.188	.131	10.809	-.464	1.319	.124	.725	.629	.047	8.335	-.217	1.614	.018	.893	.805	.034	19.040
ACB [4]	19.039	14136.267	.000	.999	185625989	.000	.	17.183	14963.099	.000	.999	28992161.2	.000	.	16.090	12749.703	.000	.999	9725383.54	.000	.
ACB [5]	2.265	2.217	1.044	.307	9.630	.125	741.915	17.648	14338.273	.000	.999	46180923.0	.000	.	18.346	14852.135	.000	.999	92771820.9	.000	.
ACB [6]	2.302	1.958	1.382	.240	9.992	.215	463.936	.961	2.131	.203	.652	2.614	.040	170.227	14.189	8170.138	.000	.999	1452091.39	.000	.
ACB [7]	-3.150	1.597	3.890	.049	.043	.002	.981	-3.649	2.101	3.016	.082	.026	.000	1.599	-23.594	3573.324	.000	.995	.000	.000	.
NAT			8.389	.396						5.049	.752						4.510	.608			
NAT [1]	21.725	12212.450	.000	.999	2.722E+9	.000	.	-1.502	22874.542	.000	1.000	.223	.000	.	19.546	16961.963	.000	.999	305061605	.000	.
NAT [2]	-3.552	2.030	3.060	.080	.029	.001	1.533	-2.005	28292.115	.000	1.000	.135	.000	.	-18.696	16235.618	.000	.999	.000	.000	.
NAT [3]	-1.897	1.032	3.379	.066	.150	.020	1.134	-22.260	3301.490	.000	.995	.000	.000	.	-15.748	16235.618	.000	.999	.000	.000	.
NAT [4]	-3.259	1.231	7.011	.008	.038	.003	.429	-21.326	3301.490	.000	.995	.000	.000	.	-18.327	16235.618	.000	.999	.000	.000	.
NAT [5]	-1.914	1.050	3.321	.068	.147	.019	1.155	-19.040	3301.490	.000	995	.000	.000	.	-17.534	16235.618	.000	.999	.000	.000	.
NAT [6]	-2.071	.923	5.030	.025	.126	.021	.770	-19.945	3301.490	.000	.995	.000	.000	.	-17.710	16235.618	.000	.999	.000	.000	.
NAT [7]	-1.795	1.084	2.745	.098	.166	.020	1.389	-18.742	3301.490	.000	.995	.000	.000	.	-	-	-	-	-	-	-
NAT [8]	-1.902	1.016	3.502	.061	.149	020	1.094	-19.822	3301.490	.000	.995	.000	.000	.	-	-	-	-	-	-	-
GEN [1]	-2.164	1.359	2.535	.111	.115	.008	1.649	-1.733	1.315	1.736	.188	.177	.023	2.328	1.817	1.791	1.029	.310	6.154	.184	206.018
DEAL_VALUE	.000	.000	.094	.760	1.000	1.000	1.000	.000	.000	.862	.353	1.000	1.000	1.000	.000	.000	.001	.969	1.000	1.000	1.000
STOCK_ACQUIRED	8.703	1.205	52.185	.000	6021.489	567.822	63855,045	8.740	1.467	35.507	.000	6248.111	352.571	110726.242	8.677	2.287	14.398	.000	5866.335	66.359	518601.139
MARKET_CAP	.000	.000	2.225	.136	1.000	1.000	1.000	.000	.000	2.032	.154	1.000	1.000	1.000	.000	.000	.089	.766	1.000	1.000	1.000
TOTAL_ASSETS	.000	.000	.449	.503	1.000	1.000	1.000	.000	.000	.263	.608	1.000	1.000	1.000	.000	.000	.095	.758	1.000	1.000	1.000
STOCK_PRICE	.005	.007	.399	.528	1.005	.990	1.020	.001	.006	.017	.896	1.001	.989	1.013	.033	.034	.955	.328	1.033	.968	1.104
RATIO Q	.000	.001	.007	.934	1.000	.998	1.002	.000	.000	.005	.946	1.000	.999	1.001	.000	.001	.001	.971	1.000	.999	1.001
Constant	-4.280	2.051	4.357	.037	.014			13.709	3301.490	.000	.997	898652.318			8.014	16235.618	.000	1.000	3021.520		

			Scenario 1			Scenario 2			Scenario 3		
			Predicted			Predicted			Predicted		
			TAR		Percentage Correct	TAR		Percentage Correct	TAR		Percentage Correct
			.00	1.00		.00	1.00		.00	1.00	
Observed	TAR	.00	37 (0)	20 (57)	64,9 (,0)	28 (0)	14 (42)	66,7 (,0)	18 (0)	8 (26)	69,2 (,0)
		1.00	7 (0)	314 (321)	97,8 (100,0)	7 (0)	274 (281)	97,5 (100,0)	5 (0)	191 (196)	97,4 (100,0)
	Overall Percentage				92,9 (84,9)			93,5 (87,0)			94,1 (88,3)

Annex 7

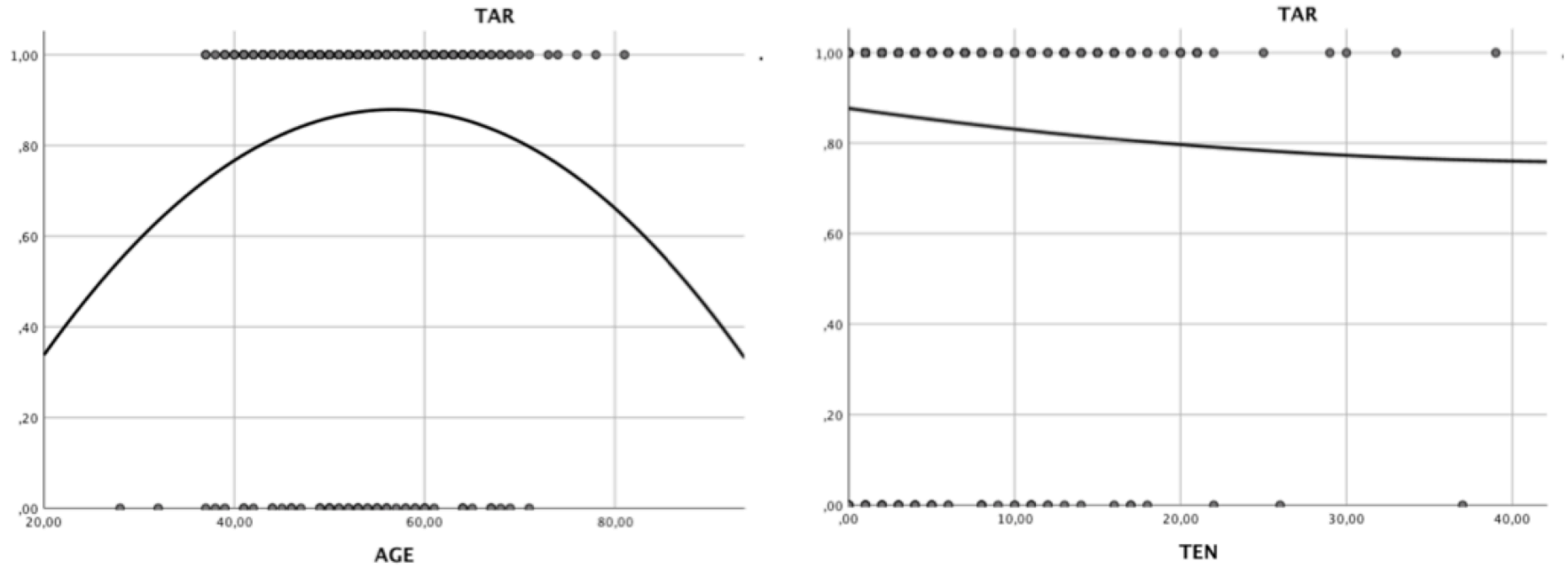
The following tables and figures show the curve behavior of target firms' CEOs age and tenure and their likelihood to resist a takeover attempt.

Scenario	Model Summary – Age variable				Model Summary – Tenure variable			
	R	R square	Adjusted R square	Std. error of the estimate	R	R square	Adjusted R square	Std. Error of the estimate
Scenario 1	.112	.012	.007	.357	.069	.005	.000	.358
Scenario 2	.166	.028	.022	.333	.110	.020	.006	.336
Scenario 3	.165	.027	.018	.324	.143	.012	.012	.325

		ANOVA – Age variable					ANOVA – Tenure variable				
		Sum of squares	df	Mean square	F	sig.	Sum of squares	df	Mean square	F	Sig.
Scenario 1	Regression	.603	2	.301	2.364	.095	.233	2	.117	.908	.404
	Residual	47.802	375	.127			48.171	375	.128		
	Total	48.405	377				48.405	377			
Scenario 2	Regression	1.001	2	.505	4.551	.011	.440	2	.220	1.950	.144
	Residual	35.528	320	.111			36.099	320	.113		
	Total	36.539	322				36.539	322			
Scenario 3	Regression	.644	2	.322	3.066	.049	.485	2	.242	2.293	.103
	Residual	23.087	220	.105			23.246	220	.106		
	Total	23.731	222				23.731	222			

		Coefficients – Age variable					Coefficients – Tenure variable				
		Unstandardized coefficients		Standardized coefficients	t	sig.	Unstandardized coefficients		Standardized coefficients	t	sig.
		B	Std. Error	Beta			B	Std. Error	Beta		
Scenario 1	Age / Tenure	.406	.022	1.032	2.090	.037	-.005	.007	-.092	-.746	.456
	Age square / Tenure square	.000	.000	-.996	-2.016	.044	5,539E-5	.000	.026	.209	.834
	Constant	-.412	.590		-.699	.485	.877	.032		27.723	.000
Scenario 2	Age / Tenure	.065	.025	1.515	2.285	.005	-.001	.008	-.025	-.193	.847
	Age square / Tenure square	-.001	.000	-1.449	-2.702	.007	.000	.000	-.087	-.678	.498
	Constant	-.915	.611		-1.496	.136	.894	.033		27.236	.000
Scenario 3	Age / Tenure	.067	.027	1.568	2.466	.014	-.001	.008	-.022	-.146	.884
	Age square / Tenure square	-.001	.000	-1.545	-2.430	.016	.000	.000	-.122	-.802	.423
	Constant	-.934	.733		-1.275	-.204	.907	.038		23.591	.000

Scenario 1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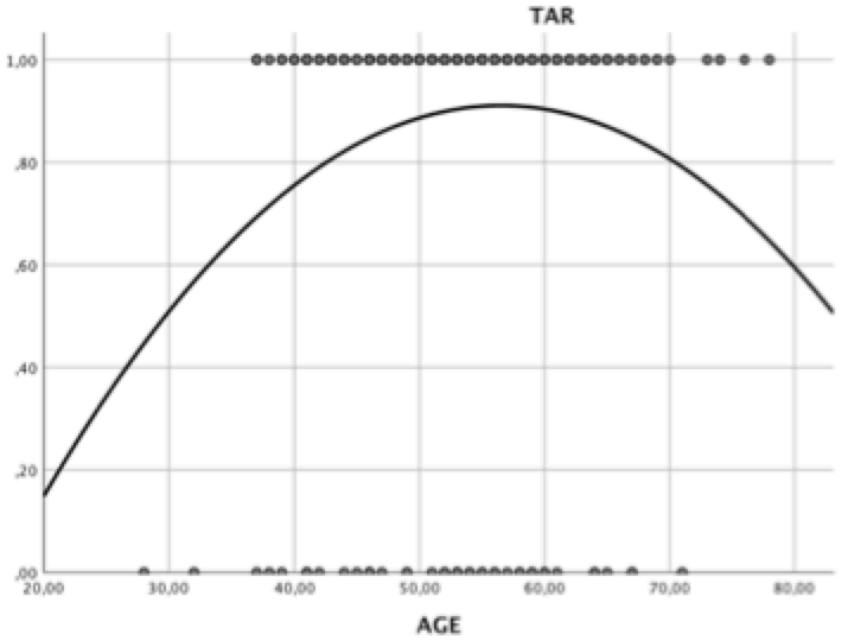
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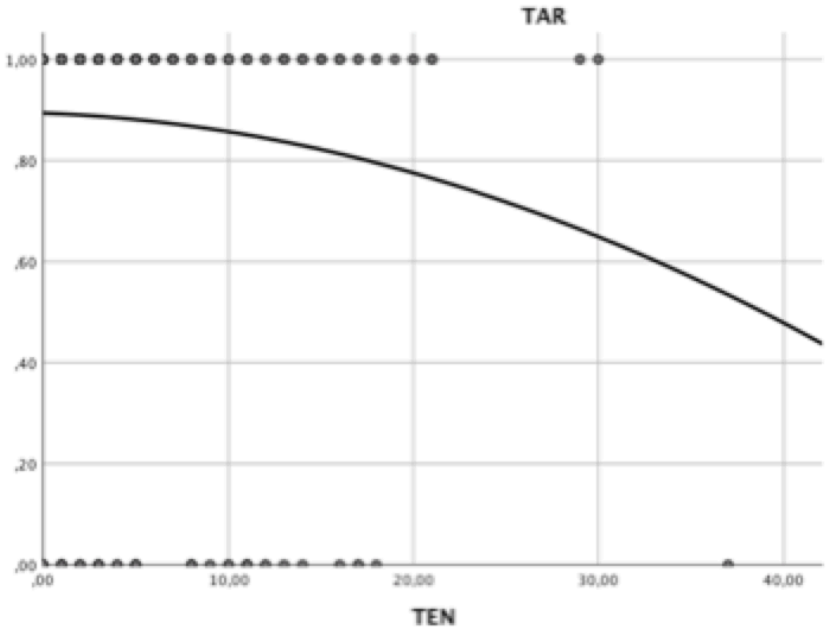
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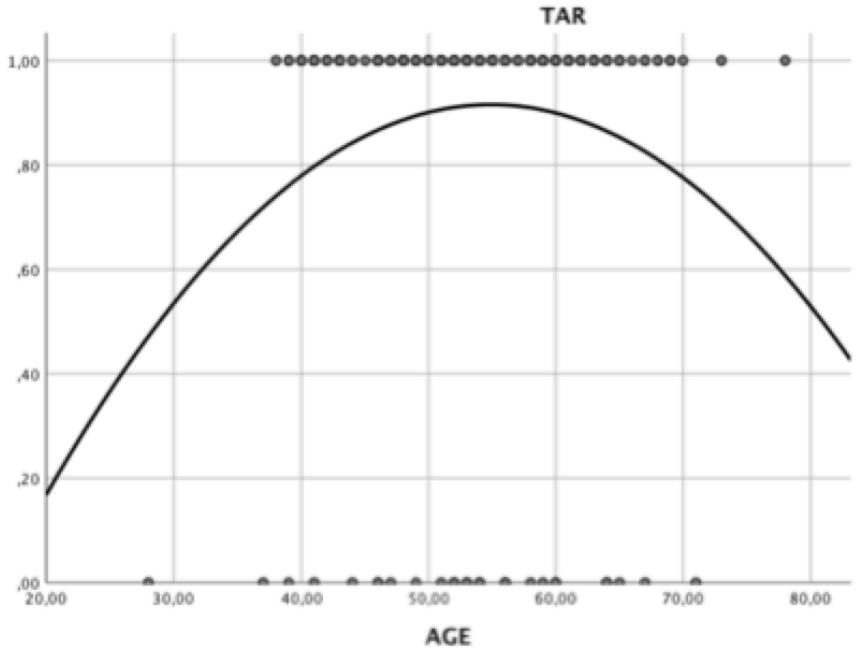
Scenario 3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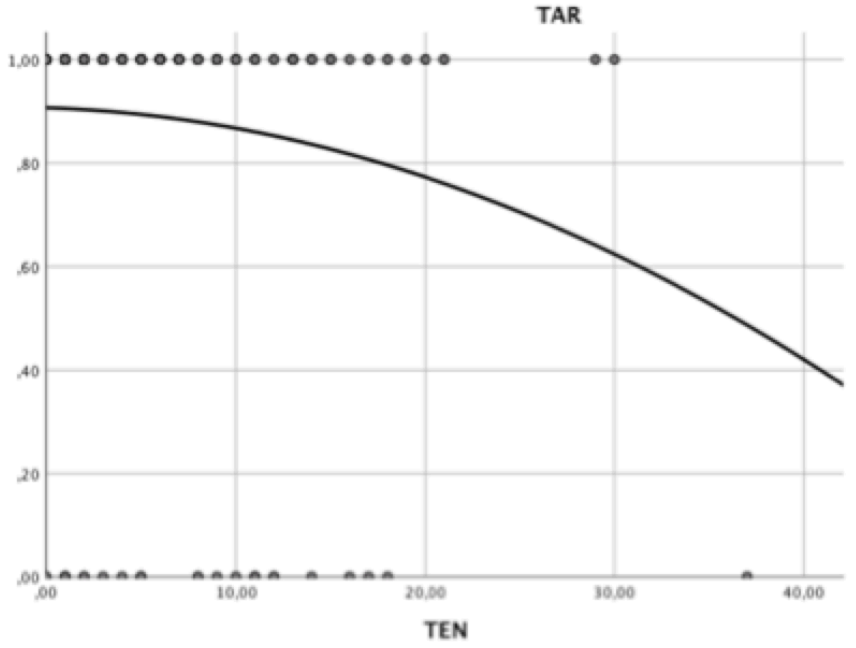
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